HITACHI

SM011

42PD9700C
42PD9700U
42PD9R10
55PD9700C
55PD9700U

SERVICE MANUAL
MANUEL D'ENTRETIEN
WARTUNGSHANDBUCH

CAUTION:

Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this service manual.

ATTENTION:

Avant d'effectuer l'entretien du châassis, le technicien doit lire les «Précautions de sécurité» et les «Notices de sécurité du produit» présentés dans le présent manuel.

VORSICHT:

Vor Öffnen des Gehäuses hat der Service-Ingenieur die „Sicherheitshinweise" und „Hinweise zur Produktsicherheit" in diesem Wartungshandbuch zu lesen.

Data contained within this Service manual is subject to alteration for improvement.

Les données fournies dans le présent manuel d'entretien peuvent faire l'objet de modifications en vue de perfectionner le produit.

Die in diesem Wartungshandbuch enthaltenen Spezifikationen können sich zwecks Verbesserungen ändern.

Servicing the 42PD9R10

Service the 42PD9R10 in the same way as
when servicing 42PD9700U.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PLASMA TV
MAY 2006

Contents

1. Features ---------- 2
2. Specifications ---------- 4
3. Service point ---------- 5
4. Component names ---------- 6
5. New adoption technology ---------- 7
6. Adjustment ---------- 11
7. Troubleshooting ---------- 38
8. Self-diagnosis function ---------- 53
9. Basic circuit diagram ---------- 55
10. Printed wiring board diagram ---------- 80
11. Block diagram ---------- 85
12. Connection diagram ---------- 87
13. Wiring diagram ---------- 89
14. Disassembly diagram ---------- 92

CAUTION FOR SAFETY

Please read this page before repair the monitor.

This page explains to following items for keep the safety of set and prevent to accident during repair work.

- **We explain by symbol at happen the damage or injury when took wrong repair.**

⚠ **Warning**	This symbol means **"possible to die or heavy damage"**
⚠ **Caution**	This symbol means **"possible to damage or something will break"**

- **We made the symbol as below, which are kind of following items.**

⚠	This symbol means **"CAUTION"**	❗	This symbol means **"MUST"**
⚡	This symbol means **"POSSIBLE to ELECTRIC SHOCK"**	⊘	This symbol means **"DO NOT"**

⚠ WARNING

■ Should be follows to instructions.

We indicates to cabinet, chassis and parts by label, which are special attention part.

Please follow to note and [Safety Instructions] of User's Manual.

■ Prevent the electric shock.

Please take care during working because monitor has high voltage part and power supply part.

Possible to die if you tough to these place by miss take.

Please disconnect power plug during overhaul, reassemble or change parts.

You will die or take damage by electric shock if you touch to live part.

■ Use recommended components.

Please use to same characteristic component, which is same as previous for your safety and keep reliability especially marked by ⚠ in parts list and circuit diagram.

It is reason of electric shock or fire if you use non-recommended component.

■ Should be kept same style of wiring or component.

Monitor uses tubes or tapes, which made by insulator, and some components are keep distance from surface of PCB for safety.

Internal leads kept from hot part or high voltage part by clamper or styling, so please return to original condition for prevent to electric shock or fire.

■ Should be done safety check after finished.

Every part (removed screws, component and wiring) should be returned to previous condition.

Check around repair position for make damage by miss take and measure the insulated impedance by meg-ohm meter.

Confirm the value of impedance, that value is more than 4M ohm.

It is reason for electric shock or fire if that value is less than 4M ohm.

■ Nobody can check and repair to the code and combination circuit of HDCP.

Never remove the shield case, which is assembled to the code and combination circuit of HDCP.

PRECAUTIONS

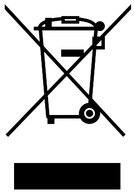
How to clean the plasma screen panel of the monitor

Before cleaning the monitor, turn off the monitor and disconnect the power plug from the power outlet.
To prevent scratching or damaging the plasma screen face, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a soft cloth. If it is not enough, then use a cloth with mild detergent. Do not use harsh or abrasive cleaners.

How to clean the cabinet of the monitor

Use a soft cloth to clean the cabinet and control panel of the monitor. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth and afterward wipe with a dry soft cloth.
Never use acid/alkaline detergent, alcoholic detergent, abrasive cleaner, powder soap, OA cleaner, car wax, glass cleaner, etc. especially because they would cause discoloration, scratches or cracks.

Information for users applicable in European Union countries



This symbol on the product or on its packaging means that your electrical and electronic equipment should be disposed at the end of life separately from your household wastes. There are separate collection systems for recycling in EU. For more information, please contact the local authority or the dealer where you purchased the product.

1. Features

Large-screen, high-definition plasma display panel

The 42-inch colour plasma display panel, with a resolution of 1024 (H) x 1080 (V) pixels, creates a high-definition, large-screen(aspect ratio : 16:9) and low-profile flat display. Free from electromagnetic interferences from geomagnetic sources and ambient power lines, the panel produces high-quality display images free from color misconvergence and display distortion.

High Performance Digital Processor

A wide range of input signals can be handed,including composite, component,and HDMI.High Definition Digital Processor creates the fine-textured image with dynamic contrast. In addition, it corresponds to a broad array of personal computer signals, from 640 x 400 and 640 x 480 VGA to 1600 x 1200 UXGA.(Analog Input)

Easy-to-use remote control and on screen display system

The remote control included eases the work of setting display controls. Further, the on-screen display system, displays the status of signal reception and display control settings in an easy-to-view fashion.

Connecting to an Audio Visual Device

- Three Scart terminals[*1], composite/S terminal[*2], a component terminal[*3], and two HDMI terminals have been added. A composite video output terminal is also provided as a monitoring output.

[*1] AV1 scart applies to composite/ S-video
AV2 and 3 scart applies to composite/ RGB

[*2] AV5 composite/S-Video=Side Input

[*3] AV4 can be connected to the equipment with either component or composite Output.

- A wide range of devices can be also connected besides personal computers.

SD card slot installed

Power Swivel Feature

It allows turning the plasma display left or right within ±30 degree using the remote control.

Digital Terrestrial Television Broadcasting

Converting into digital signal enables to provide more channels and various useful features, such as Electric Programme Guide, Digital Teletext, and so on. Further, digital signal can create high quality picture.

Difference of broadcast signal method, divided into 42/55PD9700U and 42/55PD9700C according to country.

This logo indicates that the product is compliant with European Digital Broadcasting.
DVB is a registered trademark of the DVB Project.

This logo indicates that the product is set up to view digital terrestrial TV.
FREEVIEW and the FREEVIEW logo are trade marks of DVT Services Ltd and are used under license.
FREEVIEW Logo © DTV Services Ltd 2002.

This logo indicates that the product will work after implementation of full digital switchover.
The Digital logo is a Certification Mark.

2. Specifications

SPECIFICATION			
Panel	Display dimensions	Approx. 42 inches (922 (H) x 524 (V) mm, diagonal 1059mm)	Approx. 55 inches (1230 (H) x 692 (V) mm, diagonal 1412mm)
	Resolution	1024(H) x 1080 (V) pixels	1366 (H) x 768 (V) pixels
Net dimensions		including Stand: 1134(W)x728(H)x350(D) mm excluding Stand: 1134(W)x648(H)x108(D) mm	including Stand: 1510(W)x933(H)x450(D) mm excluding Stand: 1510(W)x840(H)x105(D) mm
Net weight		including Stand: 45.0kg excluding Stand: 39.3kg	including Stand: 73.5kg excluding Stand: 62.0kg
Ambient conditions	Temperature	Operating : 5°C to 35°C, Storage : 0°C to 40°C	
	Relative humidity	Operating : 20% to 80%, Storage : 20% to 90% (non-condensing)	
Power supply		AC100 - 240V, 50/60Hz	
Power consumption/ at standby		380W / <3W	490W / <3W
Audio output		speaker total 36W	speaker total 36W
(VIDEO input)			
Input terminals		AV1 : composite video input terminal (SCART) S video input terminal (SCART) L/R audio input terminal (SCART) AV2•3 : composite video input terminal (SCART) RGB video input terminal (SCART) L/R audio input terminal (SCART) AV4 : composite video input terminal (RCA) component video input terminal.(RCA) L/R audio input terminal (RCA) AV5 : composite video input terminal (RCA) S video input terminal (Mini DIN) L/R audio input terminal (RCA) HDMI 1•2 : HDMI input terminal Audio input terminal (3.5mm Stereo Mini Jack) Photo Input : Photo Input terminal / SD card slot	
Input signals		Composite video: PAL, SECAM, NTSC3.58, NTSC4.43, PAL60 Component video: 480i, 576i, 480p, 576p, 720p/50, 720p/60, 1080i/50, 1080i/60	
Output Signal		OUTPUT (MONITOR): composite video monitor-output terminal (RCA) OUTPUT (MONITOR): L/R audio monitor- output terminal (RCA) OUTPUT (HEADPHONE): L/R audio monitor- output terminal (Mini-pin) OUTPUT (SUB-WOOFER): Woofer output terminal AV1 : composite video output terminal (SCART) L/R audio output terminal (SCART) AV2•3 : composite video output terminal (SCART) L/R audio output terminal (SCART)	
(RF input)			
Input terminal / Receiving range		ANT : 75Ω Unbalanced / 44~870MHz	
RF Video System		PAL B, G, H / I / D, K SECAM B, G / K1 / L, L' / (D,K) DVB-T	
(RGB input)			
Input terminals		Analogue RGB input terminal (D-sub 15-pin) Audio input terminal (3.5mm Stereo Mini Jack)	
Input signals		0.7 V/1.0 Vp-p, analogue RGB (Recommended Signal)	
Sync signals		H/V separate, TTL level [2KΩ] H/V composite, TTL level [2KΩ] Sync on green, 0.3 Vp-p [75Ω]	

- The monitor takes at least 30 minutes to attain the status of optimal picture quality.
  The SECAM D, K system might not be normally received, depending on the model.

3. Service points

● Lead free solder

This product uses lead free solder (unleaded) to help preserve the environment. Please read these instructions before attempting any soldering work.

Caution: Always wear safety glasses to prevent fumes or molten solder from getting into the eyes. Lead free solder can splatter at high temperatures (600˚C).

■ Lead free solder indicator

Printed circuit boards using lead free solder are engraved with an "F."

■ Properties of lead free solder

The melting point of lead free solder is 40-50˚C higher than leaded solder.

■ Servicing solder

Solder with an alloy composition of Sn-3.0Ag-0.5Cu or Sn-0.7Cu is recommended.
Although servicing with leaded solder is possible, there are a few precautions that have to be taken. (Not taking these precautions may cause the solder to not harden properly, and lead to consequent malfunctions.)

Precautions when using leaded solder

- Remove all lead free solder from soldered joints when replacing components.
- If leaded solder should be added to existing lead free joints, mix in the leaded solder thoroughly after the lead free solder has been completely melted (do not apply the soldering iron without solder).

■ Servicing soldering iron

A soldering iron with a temperature setting capability (temperature control function) is recommended.
The melting point of lead free solder is higher than leaded solder. Use a soldering iron that maintains a high stable temperature (large heat capacity), and that allows temperature adjustment according to the part being serviced, to avoid poor servicing performance.

Recommended soldering iron:

- Soldering iron with temperature control function (temperature range: 320-450˚C)

Recommended temperature range per part:

Part	Soldering iron temperature
Mounting (chips) on mounted PCB	320˚C±30˚C
Mounting (chips) on empty PCB	380˚C±30˚C
Chassis, metallic shield, etc.	420˚C±30˚C

The PCB assembies which use lead free solder

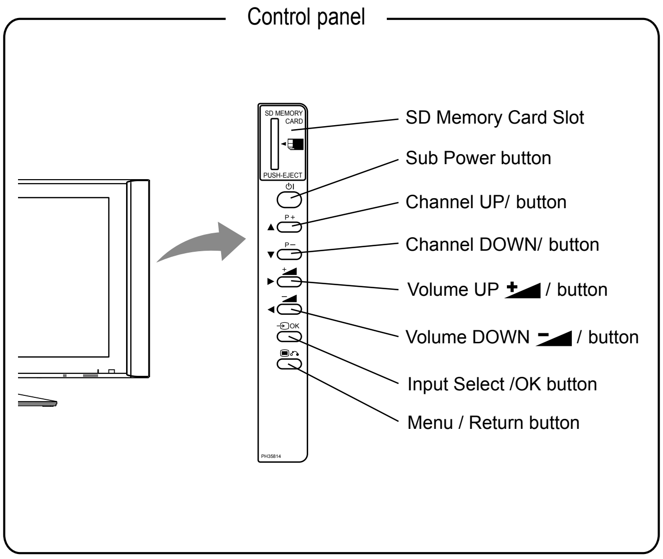
① SUB-POWER PCB (Sub-power PCB, Filter PCB, Terminal PCB)
② SOUND PCB (Audio PCB, Control PCB, Switch PCB)
③ FC PCB
④ MAIN PCB (Main PCB, LED PDP PCB, Swivel PCB)

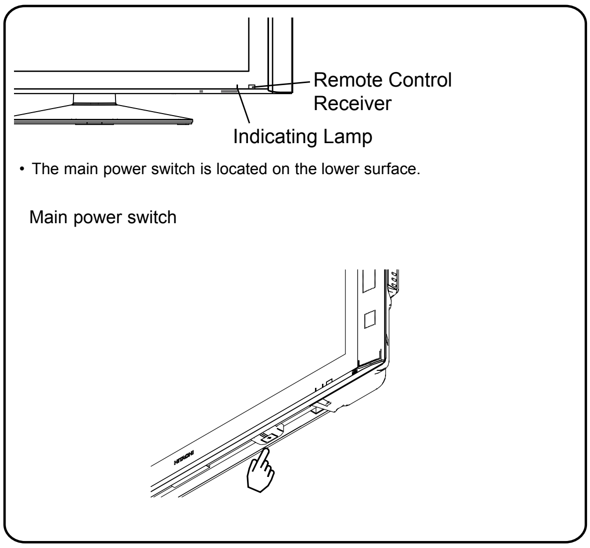
■ Readjustment Power supply voltage

When a PANEL or a Power Unit is exchanged, power supply voltage needs to be adjusted. Please adjust to make the values of Va and Vs of as should on the label currently stuck on the panel back upper parts. Adjustment is performed by VR in the power supply unit. Please refer to the procedures of “Va” and “Vs” adjustments on page 32.

4. Component names

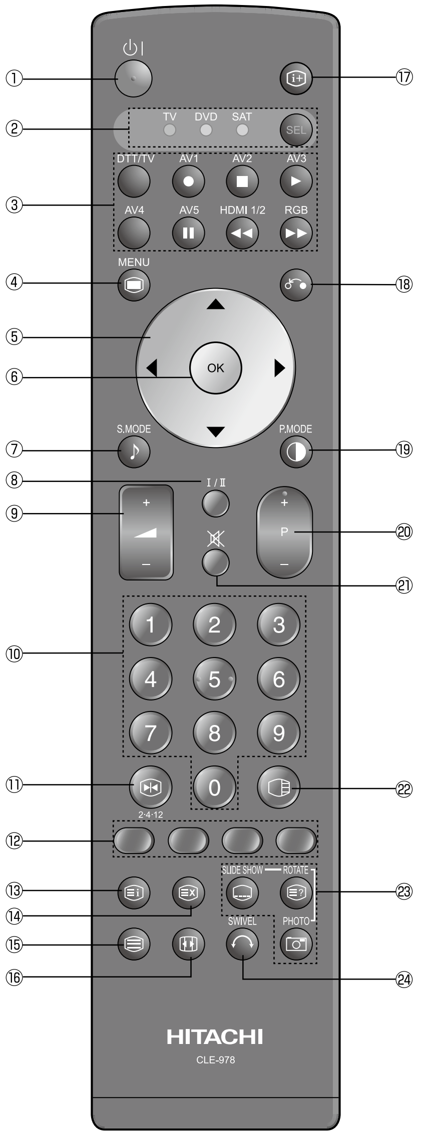
[Main unit]


Control panel
SD MEMORY CARD
PUSH-EJECT
P+
P−
OK
PH35814
SD Memory Card Slot
Sub Power button
Channel UP/ button
Channel DOWN/ button
Volume UP / button
Volume DOWN / button
Input Select /OK button
Menu / Return button


Remote Control Receiver
Indicating Lamp
Main power switch

• The main power switch is located on the lower surface.

[Remote control]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DTT/TV
AV1
AV2
AV3
AV4
AV5
HDMI 1/2
RGB
MENU
OK
S.MODE
P.MODE
I / II
+
−
P
1
2
3
4
5
6
7
8
9
0
2·4·12
SLIDE SHOW
ROTATE
SWIVEL
PHOTO
HITACHI
CLE-978

① **Sub Power**

② **Function Select (TV/DVD/SAT)**
Press this button to select function mode indicating LED lamp.
Normally, select "TV".

③ **Input Select/DVD Control/Photo Input Control**
Press this button to change input mode.
In addition, you can use these buttons while operating the selected brand of DVD player or Photo Input function.

④ **Menu**

⑤ **Cursor**

⑥ **OK**

⑦ **Sound Mode**
Sound mode can be changed each time pressed in the following sequence. Movie→Music→Speech→Favourite

⑧ **CHI/II**
This is exclusively for TV audio A2/NICAM mode.

⑨ **Volume Up/Down**

⑩ **Programme Select**
Press these buttons to select a TV program directly.

⑪ **Freeze/Multi Mode [Hold]**
Press this button to change the picture to freeze mode. Press it again to return to normal picture. In addition, during multi-picture mode, each time press this button, the picture is changed to 2, 4, and 12 multi mode. (Also, it holds the page in text mode.)

⑫ **[Colour (Red, Green, Yellow, Blue)]**

⑬ **[Index]**

⑭ **Time [Cancel]**
Pressing this button can indicate the time by On-Screen display when receiving a TV programme on the screen.

⑮ **TV/Text [TV⇔Text]**
This switches between the TV mode and the Teletext mode.

⑯ **Zoom [Text⇔TV+Text]**
Press this button to change picture size.

⑰ **Recall**
Pressing this button shows the input signal status.

⑱ **Return**
You can use this to return to the previous menu.

⑲ **Picture Mode**
Picture mode can be changed each time pressed in the following sequence. Dynamic→Natural→Cinema

⑳ **Channel Up/Down**

㉑ **Mute**

㉒ **Multi Picture**
Press this button to change the picture to multi-picture mode. Press it again to return to normal picture.

㉓ **Photo Input (Photo/Rotate/Slide Show)**
These buttons are to display and control the pictures from digital still camera or USB card reader.

㉔ **Swivel** (with Desktop Stand)
This function is to rotate TV. Select the degree of rotation with cursor key.

5. New adoption technology

[System control micom I001(M30627)]

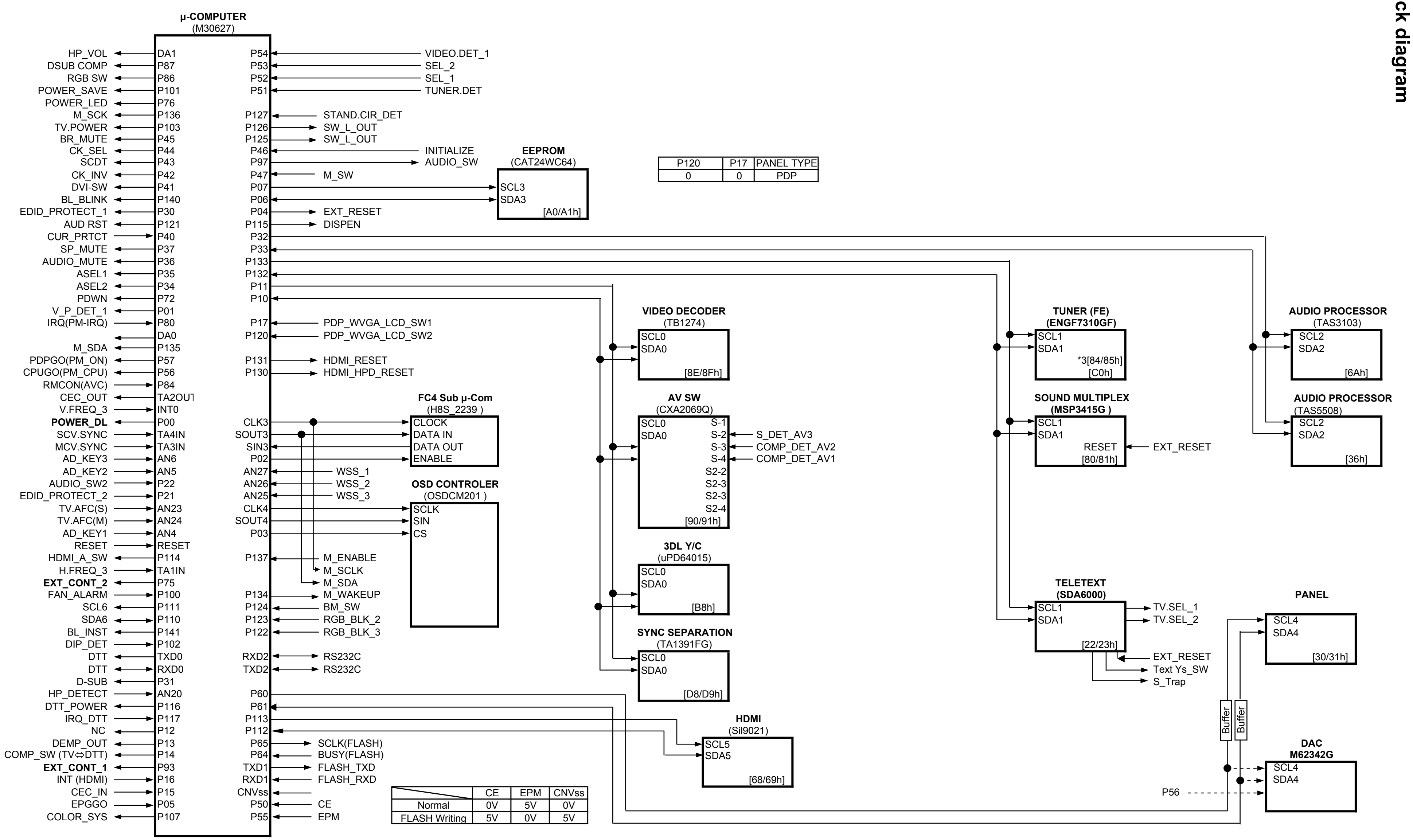
- **Pin function table**

No.	PIN NAME	I/O	Panel: PDP	FUNCTION
1	VREF (+5.0V)	I	PDP	5V
2	+5.0V	I	PDP	5V
3	AUDIO_SW1	I/O	PDP	Audio SW1
4	OSD_DATA	I/O	PDP	OSD DATA
5	OSD_CLK	I/O	PDP	OSD CLK
6	HP_VOL	I/O	PDP	Head Phone Volume
7	FUNC_1 EXT CONT 1	I/O	PDP	EXT CONT 1 Function1 EXTernal Control 1
8	DATA_OUT(FC)	I/O	PDP	FC MicroComputer 3 Lines Bus Data Out /Media Data Out
9	DATA_IN(FC)	I/O	PDP	FC MicroComputer 3 Lines Bus Data In/ Media Data In
10	CLK(FC)	I/O	PDP	FC MicroComputer 3 Lines Bus Clock/ Media Clock
11	BL_INST	I/O	PDP	Black Insert On/Off for 32V LCD (37V=Low)
12	BL_BLINK	I/O	PDP	Backlight Blink On/Off for 32V LCD (37V=Low)
13	GND	I	PDP	GND
14	CNVSS(FLASH)	I	PDP	CNVSS(FLASH)
15	DSUB COMP	I/O	PDP	Sync Switching
16	RGBSW	I/O	PDP	Sync Switching
17	RESET	I	PDP	Reset
18	16MHz Oscillation	O	PDP	OSC-OUT
19	GND	I	PDP	GND
20	16MHz Oscillation	I	PDP	OSC-IN
21	+5.0V	I	PDP	5V
22	NMI(+5.0V)	I	PDP	5V PULL UP
23	RMCON	I/O	PDP	Receiving Remote Control Signal
24	NC	I/O	PDP	NC
25	V.FREQ_3	I/O	PDP	V.Frequency
26	SCV.SYNC	I/O	PDP	SUB_Y.SYNC (Composite)
27	IRQ(PM-IRQ)	I/O	PDP	PDP Control
28	MCV.SYNC	I/O	PDP	MAIN_Y.SYNC (Composite)
29	POWER_LED	I/O	PDP	L:Lighting (Power Save)
30	FUNC_2	I/O	PDP	EXT CONT 2 Function2 EXTernal Control 2
31	CEC_OUT	I/O	PDP	CEC OUT(CEC1)
32	H.FREQ_3	I/O	PDP	H.Frequency
33	PDWN	I/O	PDP	Panel LVDS
34	RXD2	I/O	PDP	RS-232C Communication
35	TXD2	I/O	PDP	RS-232C Communication
36	TXD1(RS232C/FLASH)	I/O	PDP	FLASH for Writing
37		I	PDP	5V
38	RXD1(RS232C/FLASH)	I/O	PDP	FLASH for Writing
39		I	PDP	GND
40	SCLK(FLASH)	I/O	PDP	FLASH for Writing
41	BUSY(FLASH)	I/O	PDP	FLASH for Writing
42	TXD0(DTT)	I/O	PDP	DTT
43	RXD0(DTT)	I/O	PDP	DTT
44	SDA4(panel)	I/O	PDP	PDP Communication(I2C Bus)
45	SCL4(panel)	I/O	PDP	PDP Communication(I2C Bus)
46	M_ENABLE	I/O	PDP	Media Enable
47	M_SCLK	I/O	PDP	Media Clock
48	M_SDA	I/O	PDP	Media Data
49	M_WAKEUP	I/O	PDP	Media Wakeup
50	PDPGO(PM_ON)	I/O	PDP	PDP Control/LCD Panel 12V/WVGA Power
51	CPUGO(PM_CPU)	I/O	PDP	PDP Control/Inverter Voltage
52	EPM (FLASH)	I/O	PDP	FLASH for Writing
53	VIDEO.DET_1	I/O	PDP	VIDEO Board Detection

No.	PIN NAME	I/O	Panel: PDP	FUNCTION
54	SCL1	I/O	PDP	I2C(To the Side of Main Board) FE/MSP3455or MSP3415G/SAA5361
55	SDA1	I/O	PDP	I2C(To the Side of Main Board) FE/MSP3455or MSP3415G/SAA5361
56	HDMI-RESET	I/O	PDP	HDMI-Reset
57	HDMI-HPD_RESET	I/O	PDP	Hot Plug Detect Reset
58	SEL_0	I/O	PDP	FC Clock/Others SW
59	SEL_1	I/O	PDP	HDMI/DTT SW
60	TUNER.DET_1	I/O	PDP	TUNER Detection
61	CE (FLASH)	I/O	PDP	FLASH for Writing
62	STAND.CIR_DET	I/O	PDP	Stand Detection
63	SW_L_OUT	I/O	PDP	Swivel L Output
64	SW_R_OUT	I/O	PDP	Swivel R Output
65	M_SW	I/O	PDP	Bridge Media Circuit Connection Judgement Terminal
66	INITIALIZE	I/O	PDP	Memory Initial
67	BR_MUTE	I/O	PDP	Bridge Media Audio Mute
68	CK_SEL	I/O	PDP	Clock Selector
69	SCDT	I/O	PDP	HDMI Power Save for Return
70	CK_INV	I/O	PDP	Clock Invert
71	DVI-SW	I/O	PDP	DVI Control
72	CUR_PRTCT	I/O	PDP	Power Swivel Overcurrent Detection
73	SP_MUTE	I/O	PDP	SP Relay
74	AUDIO_MUTE	I/O	PDP	Audio MUTE
75	ASEL1	I/O	PDP	Audio Switching SW
76	ASEL2	I/O	PDP	Audio Switching SW
77	SDA2	I/O	PDP	I2C(TAS3103/TAS5508)
78	SCL2	I/O	PDP	I2C(TAS3103/TAS5508)
79	D-SUB COMP_SYNC.SW	I/O	PDP	D-SUB COMP for Sync Switching
80	BM_SW	I/O		BM Switching
81	RGB_BLK_2	I/O		RGB Blank 2
82	RGB_BLK_3	I/O		RGB Blank 3
83	AUDIO_RESET	I/O		Audio Circuit Reset
84	PDP_WVGA_LCD_SW_1	I/O		PDP/42WVGA/LCD Detection
85	+5.0V	I		
86	EDID_PROTECT_1	I/O	PDP	Memory Protect(Not necessary if power is available to use)
87	GND	I	PDP	GND
88	WSS_1	I/O	PDP	SCART 1 Detection
89	WSS_2	I/O	PDP	SCART 2 Detection
90	WSS_3	I/O	PDP	SCART 3 Detection
91	TV.AFC(M)	I/O	PDP	Main Tuner Control (AFC)
92	TV.AFC(S)	I/O	PDP	Sub Tuner Control (AFC)
93	AUDIO_SW2	I/O	PDP	Audio SW2
94	EDID_PROTECT_2	I/O	PDP	Memory Protect(Not necessary if power is available to use)
95	HP_DETECT	I/O	PDP	HEAD PHONE DETECT
96	PDP_WVGA_LCD_SW_2	I/O	PDP	PDP/42WVGA/LCD Detect
97	INT_HDMI	I/O	PDP	INT(HDMI)
98	CEC_IN	I/O	PDP	CEC IN(CEC2)
99	COMP_SW	I/O	PDP	Component SW Main ⇔ DSUB
100	DEMP_OUT	I/O	PDP	De-emphasis Control Output for HDMI
101	NC	I/O		NC
102	SCL0	I/O	PDP	I^2C(To the Side of Main Board) (TA1391FG/CXA2069/uPD64015/TB1274AF)
103	SDA0	I/O	PDP	I^2C(To the Side of Main Board) (TA1391FG/CXA2069/uPD64015/TB1274AF)

No.	PIN NAME	I/O	Panel: PDP	FUNCTION
104	SCL3(EEPROM)	I/O	PDP	I^2C(EEPROM)
105	SDA3(EEPROM)	I/O	PDP	I^2C(EEPROM)
106	EPGGO	I/O	PDP	EPGGO
107	EXT_RESET	I/O	PDP	EXTERNAL RESET
108	OSD_CS	I/O	PDP	OSD CS
109	FC_ENABLE	I/O	PDP	FC MicroComputer 3 Lines Enable
110	V_P_DET_1	I/O	PDP	V_DET_1(Power Save Return)
111	V_P_DET_2	I/O	PDP	V_DET_2(Power Save Return) Power Delay Control
112	IRQ_DTT	I/O	PDP	DTT IRQ
113	DTT_POWER	I/O	PDP	DTT POWER
114	DISPEN	I/O	PDP	DISPEN/Backlight on
115	HDMI_A_SW	I/O	PDP	HDMI AUDIO SW
116	SCL5	I/O	PDP	I^2C(Sil9021)
117	SDA5	I/O	PDP	I^2C(Sil9021)
118	SCL6	I/O	PDP	I2C(To the Side of Sensor Board) (AD7414)
119	SDA6	I/O	PDP	I2C(To the Side of Sensor Board) (AD7414)
120	COLOR_SYS	I/O	PDP	Color System (Pull-in range Switching)
121	AD_KEY3	I/O	PDP	AD KEY3**
122	AD_KEY2	I/O	PDP	AD KEY2*
123	AD_KEY1	I/O	PDP	AD KEY1(Power)
124	TV.POWER	I/O	PDP	H:PowerON,L:(Standby,PowerSave)
125	DIP.DET	I/O	PDP	DIP DET
126	POWER_SAVE	I/O	PDP	L:Lighting(Standby,PowerSave), H:Lights-out
127	GND	I	PDP	GND
128	FAN_ALARM *1	I/O	PDP	FAN ALARM

• Block diagram


μ-COMPUTER
(M30627)
HP_VOL
DA1
DSUB COMP
P87
RGB SW
P86
POWER_SAVE
P101
POWER_LED
P76
M_SCK
P136
TV.POWER
P103
BR_MUTE
P45
CK_SEL
P44
SCDT
P43
CK_INV
P42
DVI-SW
P41
BL_BLINK
P140
EDID_PROTECT_1
P30
AUD RST
P121
CUR_PRTCT
P40
SP_MUTE
P37
AUDIO_MUTE
P36
ASEL1
P35
ASEL2
P34
PDWN
P72
V_P_DET_1
P01
IRQ(PM-IRQ)
P80
DA0
M_SDA
P135
PDPGO(PM_ON)
P57
CPUGO(PM_CPU)
P56
RMCON(AVC)
P84
CEC_OUT
TA2OUT
V.FREQ_3
INT0
POWER_DL
P00
SCV.SYNC
TA4IN
MCV.SYNC
TA3IN
AD_KEY3
AN6
AD_KEY2
AN5
AUDIO_SW2
P22
EDID_PROTECT_2
P21
TV.AFC(S)
AN23
TV.AFC(M)
AN24
AD_KEY1
AN4
RESET
RESET
HDMI_A_SW
P114
H.FREQ_3
TA1IN
EXT_CONT_2
P75
FAN_ALARM
P100
SCL6
P111
SDA6
P110
BL_INST
P141
DIP_DET
P102
DTT
TXD0
DTT
RXD0
D-SUB
P31
HP_DETECT
AN20
DTT_POWER
P116
IRQ_DTT
P117
NC
P12
DEMP_OUT
P13
COMP_SW (TV⇔DTT)
P14
EXT_CONT_1
P93
INT (HDMI)
P16
CEC_IN
P15
EPGGO
P05
COLOR_SYS
P107
P54
VIDEO.DET_1
P53
SEL_2
P52
SEL_1
P51
TUNER.DET
P127
STAND.CIR_DET
P126
SW_L_OUT
P125
SW_L_OUT
P46
INITIALIZE
P97
AUDIO_SW
P47
M_SW
P07
P06
P04
EXT_RESET
P115
DISPEN
P32
P33
P133
P132
P11
P10
P17
PDP_WVGA_LCD_SW1
P120
PDP_WVGA_LCD_SW2
P131
HDMI_RESET
P130
HDMI_HPD_RESET
CLK3
SOUT3
SIN3
P02
AN27
WSS_1
AN26
WSS_2
AN25
WSS_3
CLK4
SOUT4
P03
P137
M_ENABLE
M_SCLK
M_SDA
P134
M_WAKEUP
P124
BM_SW
P123
RGB_BLK_2
P122
RGB_BLK_3
RXD2
RS232C
TXD2
RS232C
P60
P61
P113
P112
P65
SCLK(FLASH)
P64
BUSY(FLASH)
TXD1
FLASH_TXD
RXD1
FLASH_RXD
CNVss
P50
CE
P55
EPM
EEPROM
(CAT24WC64)
SCL3
SDA3
[A0/A1h]
FC4 Sub μ-Com
(H8S_2239)
CLOCK
DATA IN
DATA OUT
ENABLE
OSD CONTROLER
(OSDCM201)
SCLK
SIN
CS
VIDEO DECODER
(TB1274)
SCL0
SDA0
[8E/8Fh]
AV SW
(CXA2069Q)
SCL0
SDA0
S-1
S-2
S-3
S-4
S2-2
S2-3
S2-3
S2-4
[90/91h]
S_DET_AV3
COMP_DET_AV2
COMP_DET_AV1
3DL Y/C
(uPD64015)
SCL0
SDA0
[B8h]
SYNC SEPARATION
(TA1391FG)
SCL0
SDA0
[D8/D9h]
HDMI
(Sil9021)
SCL5
SDA5
[68/69h]
TUNER (FE)
(ENGF7310GF)
SCL1
SDA1
*3[84/85h]
[C0h]
SOUND MULTIPLEX
(MSP3415G)
SCL1
SDA1
RESET
[80/81h]
EXT_RESET
TELETEXT
(SDA6000)
SCL1
SDA1
[22/23h]
TV.SEL_1
TV.SEL_2
EXT_RESET
Text Ys_SW
S_Trap
AUDIO PROCESSOR
(TAS3103)
SCL2
SDA2
[6Ah]
AUDIO PROCESSOR
(TAS5508)
SCL2
SDA2
[36h]
PANEL
SCL4
SDA4
[30/31h]
Buffer
Buffer
DAC
M62342G
SCL4
SDA4
P56

P120	P17	PANEL TYPE
0	0	PDP

	CE	EPM	CNVss
Normal	0V	5V	0V
FLASH Writing	5V	0V	5V

6. Adjustment

● How to get to Adjustment mode

Using the R-side control buttons with the set turned off (standby) can activate it.
Press the SUB-POWER(⏻) button, INPUT SELECT(⇥) button and ▼ button at the same time, and hold for more than 5 seconds.
The set turns on in adjustment mode with OSD.

● Changing data and Selecting Adjustment code

When the set is in adjustment mode, the cursor ◀ , ▶ , ▲ , ▼ and OK buttons of the remote control or R-side control buttons may be used as the adjustment keys.
▲ , ▼ buttons are used for selecting adjustment code.
◀ , ▶ buttons are used for changing data values.
OK button is used for confirming the data.
After finishing the necessary adjustment press MENU button. Adjustment mode is released and the set returns to normal condition.

● Memory Initialize operation

NOTE: The execution of this function returns the adjustment codes to the preset values, therefore, adjustment data will be lost.

Procedure

(1) Enter Adjustment Mode.
(2) Select MEMORY INIT adjustment code (No.898) and change the data value from 0 to 1.
(3) Activate MEMORY INIT by pressing OK button.
(4) Select No.712 and change data value from 1 to 0.
(5) Check that the receiving channel goes to P1. Unit is set to preset values.

● How to check method of the use accumulation time for panel.

Select No. 894 of Service Adjustment Menu.

● Do the following when flicker is obvious.

This phenomenon depends on a contrast improvement function of a panel.
In the following condition, there is the case that this phenomenon occurs.
But outbreak frequency is very low.

- A still image of a single raster
- A signal of the video specification gradation input

ADJ Items	ADJ No.	Init. Value	Max. value
PC mode	275	0	1
Dynamic mode	829	0	1
Normal mode	830	0	1
Cinema mode	831	0	1

● Service adjustment items by I²C-bus control (MAIN Part)

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
0	SUB_CONTRAST (AV1)	Sub Composite mode		15	8	TB1274
1	SUB_CONTRAST (AV2)	Sub Composite mode		15	8	TB1274
2	SUB_CONTRAST (AV3)	Sub Composite mode		15	8	TB1274
3	SUB_CONTRAST (AV4)	Sub Composite mode		15	8	TB1274
4	SUB_CONTRAST (AV5)	Sub Composite mode		15	8	TB1274
5	SUB_CONTRAST (RF)	Sub		15	8	TB1274
6	Sub Color	Sub		15	8	TB1274
7	TINT (RF)	Sub		63	29	TB1274
8	TINT (VIDEO)	Sub		63	29	TB1274
9	Reference Amplitude(RGB_AMP)	RF/VIDEO		254	127	FC
10	Reference Amplitude(RGB_AMP)	PC		254	127	FC
11	Reference Amplitude(RGB_AMP)	Multi Picture mode		254	130	FC
12	Display for Max. Amplitude Level	Main		-	-	FC
13	Display for Max. Amplitude Level	Sub		-	-	FC
14	Set Blue Gamma gain On/Off 0:Off, 1:On (For 55V)	For 55V		1	1	FC
15	Contrast mode<Dynamic> SW (TV) 0:Dynamic, 1:Dynamic+Auto	RF		1	1	FC
16	APL Enhancer 0:OFF, 1:ON	For Dynamic mode		1	1	FC
17	HDMI PC Function 0:OFF, 1:ON (for customer request)			1	0	
18	PinP Function (for PC) 0:PinP, 1:Infomation1, 2:Infomaiton Split			2	0	FC
19	Black Level(RGB_AMP)	RF/VIDEO		254	127	FC
20	Black Level(RGB_AMP)	PC		254	127	FC
21	Black Level(RGB_AMP)	For USA NTSC/480i		254	127	FC
22	Protect for Image Retention 0:Off, 1:7%, 2:14%, 3:21%, 4:AUTO	Dynamic mode		4	4	FC
23	Protect for Image Retention 0:Off, 1:7%, 2:14%, 3:21%, 4:AUTO	Natural mode		4	4	FC
24	Protect for Image Retention 0:Off, 1:7%, 2:14%, 3:21%, 4:AUTO	Cinema mode		4	4	FC
25	YNR Input Level	RF		7	7	FC
26	YNR Input Level	VIDEO		7	7	FC
27	YNR Input Level	Scart-RGB(50/60Hz)		7	7	FC
28	YNR Input Level	480i/576i		7	7	FC
29	YNR Input Level	480p/576p		7	7	FC
30	YNR Input Level for AV1-5 Mode	1080i-50/60/720p		7	7	FC
31	YNR Input Level for →HDMI Mode	480i/480p/576i/576p/VGA		7	7	FC
32	YNR Input Level for →HDMI Mode	1080i-50/60/720p		7	7	FC
33	CNR Input Level at Low level for AV1-5 Mode	RF/VIDEO		7	3	FC
34	CNR Input Level at Low level for AV1-5 Mode	Scart-RGB(50/60Hz)		7	3	FC
35	CNR Input Level at Low level for AV1-5 Mode	480i/576i		7	3	FC
36	CNR Input Level at Low level for AV1-5 Mode	480p/576p		7	3	FC
37	CNR Input Level at Low level for AV1-5 Mode	1080i-50/60/720p		7	3	FC
38	CNR Input Level at Low level for →HDMI Mode	480i/480p/576i/576p/VGA		7	2	FC
39	CNR Input Level at Low level for →HDMI Mode	1080i-50/60/720p		7	2	FC
40	Main/Sub YFRNR Pass Level [MYNRP0]	NTSC/PAL/Multi		7	1	FC
41	[MYNRP5]	NTSC/PAL-VIDEO		7	0	FC
42	[MYNRP6']	Scart-RGB(50/60Hz)		7	0	FC
43	[MYNRP6]	480i/576i (Except HDMI)		7	0	FC
44	[MYNRP7]	480p/576p (Except HDMI)		7	0	FC
45	[MYNRP8]	1080i-50/60/720p (Except HDMI)		7	0	FC
46	[MYNRP6]	480i/576i (HDMI)		7	0	FC
47	[MYNRP7]	480p/576p (HDMI)		7	0	FC
48	[MYNRP8]	1080i-50/720p-50 (HDMI)		7	1	FC
49	[MYNRP8']	1080i-60/720p-60 (HDMI)		7	0	FC
50	Main/Sub CFRNR Pass Level [MCNRP0]	NTSC/PAL/Multi		7	2	FC
51	[MCNRP5]	NTSC/PAL-VIDEO		7	2	FC
52	[MCNRP6']	Scart-RGB(50/60Hz)		7	2	FC
53	[MCNRP6]	480i/576i		7	2	FC
54	[MCNRP7]	480p/576p		7	2	FC
55	[MCNRP8]	1080i-50/60/720p		7	0	FC
56	Vertical Enhancer Gain for B-Y/B, R-Y/R [CVEG0]	NTSC/PAL/480i/576i/Multi		15	15	FC
57	[CVEG1]	480p/576p/1080i-50/60/720p		15	9	FC
58	Vertical DSB Gain for B-Y/B, R-Y/R [CVDSBG0]	NTSC/PAL/480i/576i/Multi		3	0	FC
59	[CVDSBG1]	480p/576p/1080i-50/60/720p		3	0	FC

Adj. No	Function		Max. value	Init. Value	Device
	ADJ. Items	Mode			
60	Vertical DSB coring for B-Y/B, R-Y/R [CVDSBC0]	NTSC/PAL/480i/576i/Multi	7	0	FC
61	[CVDSBC1]	480p/576p/1080i-50/60/720p	7	0	FC
62	Vertical Enhancer CLIP 0:CTI for B-Y/B, R-Y/R [CVECLP0]	NTSC/PAL/480i/576i/Multi	1	0	FC
63	[CVECLP1]	480p/576p/1080i-50/60/720p	1	0	FC
64	Horizontal HPF Peak Frequency Switch for B-Y/B, R-Y/R [CHHPF0]	NTSC/PAL/480i/576i/Multi	3	2	FC
65	[CHHPF1]	480p/576p/1080i-50/60/720p	3	2	FC
66	Horizontal Enhancer Gain for B-Y/B, R-Y/R [CHEG0]	NTSC/PAL/480i/576i/Multi	15	15	FC
67	[CHEG1]	480p/576p/1080i-50/60/720p	15	9	FC
68	Horizontal DSB Gain for B-Y/B, R-Y/R [CHDSBG0]	NTSC/PAL/480i/576i/Multi	3	0	FC
69	[CHDSBG1]	480p/576p/1080i-50/60/720p	3	0	FC
70	Horizontal DSB Coring for B-Y/B, R-Y/R [CHDSBC0]	NTSC/PAL/480i/576i/Multi	7	0	FC
71	[CHDSBC1]	480p/576p/1080i-50/60/720p	7	0	FC
72	Horizontal Enhancer CLIP 0:CTI for B-Y/B, R-Y/R [CHECLP0]	NTSC/PAL/480i/576i/Multi	1	0	FC
73	[CHECLP1]	480p/576p/1080i-50/60/720p	1	0	FC
74	B-Y Clamp Offset	NTSC/PAL/480i/576i/480p/576p	255	128	FC
75	R-Y Clamp Offset	NTSC/PAL/480i/576i/480p/576p	255	128	FC
76	B-Y Clamp Offset	1080i-50/60	255	128	FC
77	R-Y Clamp Offset	1080i-50/60	255	128	FC
78	B-Y Clamp Offset	720p	255	128	FC
79	R-Y Clamp Offset	720p	255	128	FC
80	B-Y Clamp Offset →[HDMI]	480i/576i/480p/576p/VGA	255	128	FC
81	R-Y Clamp Offset →[HDMI]	480i/576i/480p/576p/VGA	255	128	FC
82	B-Y Clamp Offset →[HDMI]	1080i-50/60	255	128	FC
83	R-Y Clamp Offset →[HDMI]	1080i-50/60	255	128	FC
84	B-Y Clamp Offset →[HDMI]	720p	255	128	FC
85	R-Y Clamp Offset →[HDMI]	720p	255	128	FC
86	FC6 THROUGH 0:OFF, 1:THROUGH ON		1	0	FC
87	Dynamic Back Light Correction	For LCD	1	1	FC
88	Dynamic Contrast Correction		1	1	FC
89	Histogram Color Management		1	1	FC
90	Histogram Gradation Amp.		1	1	FC
91	Histogram Enhancer		1	1	FC
92	Dynamic Enhancer		1	1	FC
93	Main H Sync Phase Adjustment (MHPHS)	DTT	255	96	FC
94	Sub H Sync Phase Adjustment (SHPHS)	DTT	255	122	FC
95	P/N ID	Sub	1	0	TB1274
96	Sharpness Gain(RF/NR)	Sub	15	2	TB1274
97	Sharpness Gain(RF) BG/DK/I	Sub	15	8	TB1274
98	Sharpness Gain(RF) M	Sub	15	8	TB1274
99	Sharpness Gain(RF) L	Sub	15	8	TB1274
100	Sharpness Gain(RF) L'	Sub	15	8	TB1274
101	Sharpness Gain(VIDEO) PAL	Sub	15	8	TB1274
102	Sharpness Gain(VIDEO) NTSC3.58	Sub	15	8	TB1274
103	Sharpness Gain(VIDEO) SECAM,B/W	Sub	15	8	TB1274
104	Sharpness Gain(VIDEO) NTSC4.43	Sub	15	8	TB1274
105	Sharpness Gain(VIDEO) N-PAL	Sub	15	8	TB1274
106	Sharpness Gain(VIDEO) M-PAL	Sub	15	8	TB1274
107	Sharpness Gain(S.VIDEO)	Sub	15	10	TB1274
108	Sharpness f0(RF) BG/DK/I	Sub	3	2	TB1274
109	Sharpness f0(RF) M	Sub	3	2	TB1274
110	Sharpness f0(RF) L	Sub	3	2	TB1274
111	Sharpness f0(RF) L'	Sub	3	2	TB1274
112	Sharpness f0(VIDEO) PAL	Sub	3	2	TB1274
113	Sharpness f0(VIDEO) NTSC3.58	Sub	3	2	TB1274
114	Sharpness f0(VIDEO) SECAM,B/W	Sub	3	2	TB1274
115	Sharpness f0(VIDEO) NTSC4.43	Sub	3	2	TB1274
116	Sharpness f0(VIDEO) N-PAL	Sub	3	2	TB1274
117	Sharpness f0(VIDEO) M-PAL	Sub	3	2	TB1274
118	Y Out Level M (4.5)	Sub	63	19	TB1274
119	Y Out Level B/G (5.5)	Sub	63	13	TB1274

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
120	Y Out Level D/K (6.5)	Sub		63	12	TB1274
121	Y Out Level I (6.0)	Sub		63	13	TB1274
122	Y Out Level L (6.5)	Sub		63	12	TB1274
123	Y Out Level L' (6.5)	Sub		63	15	TB1274
124	Y Out Level (VIDEO)	Sub		63	13	TB1274
125	Y Out Level (TEXT)	Sub		63	15	TB1274
126	C Out Level M (4.5)	Sub		63	3	TB1274
127	C Out Level B/G (5.5)	Sub		63	8	TB1274
128	C Out Level D/K (6.5)	Sub		63	8	TB1274
129	C Out Level I (6.0)	Sub		63	7	TB1274
130	C Out Level L (6.5)	Sub		63	7	TB1274
131	C Out Level L' (6.5)	Sub		63	7	TB1274
132	C Out Level (VIDEO)	Sub		63	10	TB1274
133	C Out Level (TEXT)	Sub		63	15	TB1274
134	BPF_Q (4.43MHz)	Sub		3	3	TB1274
135	BPF_f0 (4.43MHz)	Sub		3	1	TB1274
136	C_TRAP_SW (COMB=OFF-PAL/NTSC4.43/NTSC3.58)	Sub		1	0	TB1274
137	LPF	Sub		1	0	TB1274
138	SECAM D-Trap	Sub		1	1	TB1274
139	FILTER SW(RF)	Sub		1	0	TB1274
140	Y_DL (4.5MHz)	Sub		10	5	TB1274
141	Y_DL (5.5MHz PAL/NTSC4.43)	Sub		10	2	TB1274
142	Y_DL (5.5MHz SECAM)	Sub		10	0	TB1274
143	Y_DL (6.0PAL/NTSC4.43)	Sub		10	7	TB1274
144	Y_DL (6.0SECAM)	Sub		10	5	TB1274
145	Y_DL (6.5PAL/NTSC4.43)	Sub		10	5	TB1274
146	Y_DL (6.5SECAM)	Sub		10	5	TB1274
147	Y_DL (L)	Sub		10	5	TB1274
148	Y_DL (L')	Sub		10	5	TB1274
149	Y_DL (VIDEO PAL/NTSC4.43)	Sub		10	5	TB1274
150	Y_DL (VIDEO SECAM)	Sub		10	5	TB1274
151	Y_DL (VIDEO NTSC)	Sub		10	5	TB1274
152	NTSC Comb(Comb off)	Sub		1	1	TB1274
153	Cb offset1	Sub		15	8	TB1274
154	Cr offset1	Sub		15	8	TB1274
155	MVM (VIDEO)			1	0	TB1274
156	AFC_GAIN (AV00)			3	0	TB1274
157	AFC_GAIN (AV1)			3	0	TB1274
158	AFC_GAIN (AV2)			3	0	TB1274
159	AFC_GAIN (AV3)			3	0	TB1274
160	AFC_GAIN (AV4)			3	0	TB1274
161	AFC_GAIN (AV5)			3	0	TB1274
162	AFC_GAIN (Except AV00)			3	0	TB1274
163	S_B-Y_ADJ	Sub		15	8	TB1274
164	S_R-Y_ADJ	Sub		15	8	TB1274
165	BELL_f0	Sub		1	0	TB1274
166	S_INHBT			1	0	TB1274
167	S_ID			1	0	TB1274
168	S_GP			3	0	TB1274
169	S_V_ID			1	0	TB1274
170	BELL/HPF			3	3	TB1274
171	HS Phase	Sub		1	0	TB1274
172	Bandwidth 1	NTSC/PAL/480i/576i		3	1	TA1391FG
173	Bandwidth 1	480p/576p		3	2	TA1391FG
174	Bandwidth 1	1080i-50/60/720p		3	0	TA1391FG
175	Bandwidth 1	DTT		3	2	TA1391FG
176	Bandwidth 2	NTSC/PAL/480i/576i		3	2	TA1391FG
177	Bandwidth 2	480p/576p		3	2	TA1391FG
178	Bandwidth 2	1080i-50/60/720p		3	0	TA1391FG
179	Bandwidth 2	DTT		3	2	TA1391FG

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
180	Sub Contrast 1	Except 15kHz system (15kHz→#262)		15	0	TA1391FG
181	Sub Contrast 1	DTT		15	0	TA1391FG
182	Sub Contrast 2			15	0	TA1391FG
183	Sub Contrast 2	DTT		15	0	TA1391FG
184	Sub Color 1			15	0	TA1391FG
185	Sub Color 1	DTT		15	0	TA1391FG
186	Sub Color 2			15	0	TA1391FG
187	Sub Color 2	DTT		15	0	TA1391FG
188	HV THRU 1	NTSC/PAL/480i/576i/480p/576p		1	0	TA1391FG
189	HV THRU 1	1080i-50/60/720p		1	0	TA1391FG
190	HV THRU 2	NTSC/PAL/480i/576i/480p/576p		1	0	TA1391FG
191	HV THRU 2	1080i-50/60/720p		1	0	TA1391FG
192	H_SEP 1	RF/VIDEO		1	0	TA1391FG
193	H_SEP 1	480i/576i		1	0	TA1391FG
194	H_SEP 1	480p/576p		1	0	TA1391FG
195	H_SEP 1	1080i_50		1	0	TA1391FG
196	H_SEP 1	1080i_60/720p		1	0	TA1391FG
197	H_SEP 2	RF/VIDEO		1	0	TA1391FG
198	H_SEP 2	480i/576i		1	0	TA1391FG
199	H_SEP 2	480p/576p		1	0	TA1391FG
200	H_SEP 2	1080i_50		1	0	TA1391FG
201	H_SEP 2	1080i_60/720p		1	0	TA1391FG
202	V_SEP 1	RF/VIDEO		1	0	TA1391FG
203	V_SEP 1	480i/576i		1	0	TA1391FG
204	V_SEP 1	480p/576p		1	0	TA1391FG
205	V_SEP 1	1080i_50		1	0	TA1391FG
206	V_SEP 1	1080i_60/720p		1	0	TA1391FG
207	V_SEP 2	RF/VIDEO		1	0	TA1391FG
208	V_SEP 2	480i/576i		1	0	TA1391FG
209	V_SEP 2	480p/576p		1	0	TA1391FG
210	V_SEP 2	1080i_50		1	0	TA1391FG
211	V_SEP 2	1080i_60/720p		1	0	TA1391FG
212	AFC MODE 1	RF		3	0	TA1391FG
213	AFC MODE 1	VIDEO		3	0	TA1391FG
214	AFC MODE 2	RF		3	0	TA1391FG
215	AFC MODE 2	VIDEO		3	0	TA1391FG
216	N_LVL 1	RF		1	0	TA1391FG
217	N_LVL 1	VIDEO		1	0	TA1391FG
218	N_LVL 2	RF		1	0	TA1391FG
219	N_LVL 2	VIDEO		1	0	TA1391FG
220	HD POSITION 1	480i/576i		15	0	TA1391FG
221	HD POSITION 1	480p/576p		15	0	TA1391FG
222	HD POSITION 1	1080i_50		15	0	TA1391FG
223	HD POSITION 1	1080i_60/720p		15	0	TA1391FG
224	HD POSITION 2	480i/576i		15	0	TA1391FG
225	HD POSITION 2	480p/576p		15	0	TA1391FG
226	HD POSITION 2	1080i_50		15	0	TA1391FG
227	HD POSITION 2	1080i_60/720p		15	0	TA1391FG
228	Y LPF 1	RF		1	1	TA1391FG
229	Y LPF 1	VIDEO		1	1	TA1391FG
230	Y LPF 2	RF		1	1	TA1391FG
231	Y LPF 2	VIDEO		1	1	TA1391FG
232	Gain 1			1	1	TA1391FG
233	Gain 2			1	1	TA1391FG
234	HD/VD OUTPUT LEVEL			1	1	TA1391FG
235	Video2-RGB MODE ON	For ASIA		1	0	-
236	Heat APC function (HAPC) available			1	1	PDP
237	γ-select(0:1.0, 1:2.2, 2:2.8)	RF/VIDEO		2	1	PDP
238	γ-select(0:1.0, 1:2.2, 2:2.8)	DSUB-RGB		2	1	PDP
239	Select for APC function			1	0	PDP

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
240	CCFMD function	RF/VIDEO		1	0	PDP
241	CCFMD function	DSUB-RGB		1	0	PDP
242	NTSC/EBU(CCFORM)	SD(YCbCr)/Scart-RGB		1	0	PDP
243	NTSC/EBU(CCFORM)	HD(YPbPr)		1	0	PDP
244	NTSC/EBU(CCFORM)	DSUB-RGB		1	0	PDP
245	Correction for Tracking (DCBON)	RF/VIDEO-Color Temp. Cool		1	1	PDP
246	Correction for Tracking (DCBON)	RF/VIDEO-Color Temp. Nor/War		1	1	PDP
247	Correction for Tracking (DCBON)	DSUB-RGB		1	1	PDP
248	Color Temp. Correction			3	2	PDP
249	Brightness Limitted Function of PANEL [APSON]			1	1	PDP
250	Dispersion Time of Sustain current 0:2 Times, 1:4 times	For Dynamic mode		1	0	PDP
251	Dispersion Time of Sustain current 0:2 Times, 1:4 times	For Natural mode		1	1	PDP
252	Dispersion Time of Sustain current 0:2 Times, 1:4 times	For Cinema mode		1	1	PDP
253	Dispersion Time of Sustain current 0:2 Times, 1:4 times	For PC mode		1	1	PDP
254	Dispersion Time of Sustain current 0:2 Times, 1:4 times	For PC-Movie mode		1	1	PDP
255	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 50Hz[Dynamic] mode		3	2	PDP
256	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 50Hz[Natural] mode		3	3	PDP
257	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 50Hz[Cinema] mode		3	3	PDP
258	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 60Hz[Dynamic] mode		3	2	PDP
259	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 60Hz[Natural] mode		3	3	PDP
260	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 60Hz[Cinema] mode		3	3	PDP
261	Q mode 0:Freeze, 1:Move 1, 2:Move 2, 3:Movie3	For 70Hz(PC)		3	0	PDP
262	Sub Contrast 1	15kHz System		15	4	TA1391FG
263	Vak OFfSet (Vak_OFS)			255	0	PDP
264	Vak to Vra Parameter(VaktoVra)			255	1	PDP
265	Vsk to Vrs Parameter(VsktoVrs)			255	1	PDP
266	VFB WAIT CounTer(CT_VWAIT)			255	60	PDP
267	VFB CORRection Counter(CT_VCORR)			255	15	PDP
268	Vsk OFFSet(Vsk_OFS)			255	0	PDP
269	Uvrs/Uvra RECALL(RCLVr)			1	0	PDP
270	C3OTON	1:ON, 0:OFF		1	1	PDP
271	C3OTLV	1:ON, 0:OFF		1	0	PDP
272	SRV16	1:ON, 0:OFF		1	0	PDP
273	WTI-VW	1:ON, 0:OFF		1	0	PDP
274	WTI-WAVE	0:AUTO1, 1:AUTO2, 2:Fix		2	0	PDP
275	SPD OFF 0:ON, 1:OFF	PC mode		1	0	PDP
276	Vsk DETect First 2Bits(Vsk_DET)			-	-	PDP
277	Vsk DETect Last 8Bits(Vsk_DET)			-	-	PDP
278	Vsk detect INIT. First 2Bits(Vsk_INIT)			-	-	PDP
279	Vsk detect INIT. Last 8Bits(Vsk_INIT)			-	-	PDP
280	Vak DETect First 2Bits(Vak_DET)			-	-	PDP
281	Vak DETect Last 8Bits(Vak_DET)			-	-	PDP
282	DeLTa Vrs value(DLT_Vrs)			-	-	PDP
283	DeLTa Vra value(DLT_Vra)			-	-	PDP
284	Vak detect INIT. First 2Bits(Vak_INIT)			-	-	PDP
285	Vak detect INIT. Last 8Bits(Vak_INIT)			-	-	PDP
286	USER Vrs(Uvrs)			-	-	PDP
287	USER Vra(Uvra)			-	-	PDP
288	ISM Limit	Limit Value 0:1023 1:580		1	0	WVGA
289	ISM Control for WVGA	For WVGA		1	1	WVGA
290	SWIVEL DEMO MODE ON			50	0	-
291	WVGA BRIGHTNESS	For WVGA		1	0	WVGA
292	Black insert function 0:Not available, 1:Available	For LCD Dynamic mode or Day mode		1	0	M30627
293	Dynamic Backlight function 0:No, 1:Yes	For LCD		1	1	M30627
294	→HDMI Setup 0:None VGA/Others Yes, 1:All none 2:All have	→HDMI		2	0	M30627
295	DTT LOG ENABLE	For DTT		1	0	-
296	AUTO_FM/AM (D11-D8)	-		15	2	MSP3455G
297	AUTO_FM/AM (D 7-D0)	-		254	189	MSP3455G
298	A2_THRESHOLD (D11-D8)	-		15	0	MSP3455G
299	A2_THRESHOLD (D 7-D0)	-		254	112	MSP3455G

Adj. No	Function		Max. value	Init. Value	Device
	ADJ. Items	Mode			
300	PRE_AM	Except 4.5MHz (Except Dual/ Stereo mode)	254	17	MSP3455G
301	VOL_SCART1 (D15-D8)	-	254	115	MSP3455G
302	VOL_SCART1 (D 7-D5)	-	7	0	MSP3455G
303	PRE_SCART	-	254	31	MSP3455G
304	PRE_FM	4.5MHz(JAPAN)	254	34	MSP3455G
305	PRE_FM	4.5MHz(Except BTSC-SAP mode)	254	32	MSP3455G
306	PRE_FM	4.5MHz(BTSC-SAP)	254	60	MSP3455G
307	PRE_FM	4.5MHz(Except KOREA-Dual/ Stereo mode)	254	36	MSP3455G
308	PRE_FM	4.5MHz(KOREA-Dual/Stereo)	254	34	MSP3455G
309	PRE_FM	Except 4.5MHz(Except Dual/ Stereo mode)	254	17	MSP3455G
310	PRE_FM	Except 4.5MHz(Dual/Stereo mode)	254	27	MSP3455G
311	PRE_NICAM	-	254	57	MSP3455G
312	CM_THRESHOLD (D15-D8)	-	254	0	MSP3455G
313	CM_THRESHOLD (D7 -D0)	-	254	36	MSP3455G
314	Sound Multiplex special operation (0:Normal 1:Korea)		1	0	M30627
315	Set Stereo jugdment level at turn on mode of Sound Multiplex	For Korea special version	127	18	M30627
316	Set Dual judgment level at turn on mode of Sound Multiplex	For Korea special version	128	18	M30627
317	Set Stereo jugdment level at normal mode of Sound Multiplex	For Korea special version	127	18	M30627
318	Set Dual judgment level at normal mode of Sound Multiplex	For Korea special version	128	18	M30627
319	Set jugdment time for jugd to Multiplex at turn on mode	For Korea special version	255	117	M30627
320	Set Counting time for jugdmenet of normal mode	For Korea special version	255	10	M30627
321	Set jugdment time for jugd to Multiplex at normal mode	For Korea special version	255	64	M30627
322	Select over modulated mode	For Korea special version	2	0	M30627
323	Set over modulated mode 1	For Korea special version	255	18	MSP3455G
324	Set over modulated mode 2	For Korea special version	255	32	MSP3455G
325	TEXT H sync delay	-	127	0	SAA5361
326	TEXT V sync delay	-	127	50	SAA5361
327	TEXT_H_POSITION	-	254	48	SAA5361
328	TEXT_V_POSITION	-	254	39	SAA5361
329	Select for APC output [Except Europe model]	Main RF	2	1	SAA5361
330	L_PLL.GAIN		1	0	TDA9885
331	HDMI EDID WRITE ENABLE	s	1	0	M30627
332	HDMI Ccolorimetry Judgement 0:Signal Format Priority/1:AVI InfoFrame Priority	HDMI	1	0	HDMI
333	BPMA : Back Porch Mode,Field2 Position Adjustment		1	1	HDMI
334	TMDS Equalization Control (0:0xC3, 1:0x0F, 2:0x1E, •••, 16:0xF0)		16	13	HDMI
335	Select HDMI 1/2 at no using 0: Both no select,1:Select HDMI 1, 2: Select HDMI 2		2	0	HDMI
336	PRMB : preamble criteria		31	6	HDMI
337	HDCP : HDCP enable criteria		31	12	HDMI
338	Picture Output Mode Select OUTTYP[1:0]		2	0	uPD64015
339	Digital LPF Through Control LPFTHR[1:0]		3	0	uPD64015
340	dummy		-	-	-
341	ADC Sampling Delay Setting ADCKS[1:0]		3	3	uPD64015
342	Clock Setting in Component Mode CPNFSC		1	1	uPD64015
343	Color System Change Detection Time Setting DETOUT[3:0]		15	4	uPD64015
344	Color System Judgement Time Setting DETTIM[3:0]		15	4	uPD64015
345	Burst Lock Detection Variable Setting CLKVA		1	1	uPD64015
346	Burst Lock Detection Condition Setting CLKLL[6:0]		127	37	uPD64015
347	ARI Gain Fine Adjustment R_GAIN[4:0]		31	16	uPD64015
348	FHD Output Delay Adjustment FHDDL[5:0]	TEXT	63	37	uPD64015
349	FHD Output Range Setting FHDWD[1:0]	TEXT	3	1	uPD64015
350	FVD Output Delay Adjustment1 FVDDL[2:0]	TEXT	7	7	uPD64015
351	FVD Output Delay Adjustment2 FVDHDL[2:0]	TEXT	7	1	uPD64015
352	For Europe : Transmission of Station Name Check Command		2	0	SAA5361
353	For Europe : Result of Station Name Check		-	-	SAA5361
354	Pedestal Level Correction Sensitivity Adjustment PEDIIRS2		1	0	uPD64015
355	AGI Gain Fine Adjusstment G_GAIN[4:0]		31	16	uPD64015
356	Jitter Filter Select FLTSEL[1:0]		3	0	uPD64015
357	ABI Gain Fine Adjustment B_GAIN[4:0]		31	16	uPD64015
358	FB Signal Input Delay Adjustment 4BH:FBCNT[2:1] & 4CH: FBCNT[0]		7	0	uPD64015
359	Analog RGB Signal Input Delay Adjustment 4Ch:RGBCNT[2] & 4Dh:4Ch:RGBCNT[1:0]		7	0	uPD64015

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
360	Sub Contrast Gain Adjustment SBCNT[5:0]			63	32	uPD64015
361	Sub Color Cb Gain Adjustment CBGAIN[5:0]			63	32	uPD64015
362	Sub Color Cr Gain Adjustment CRGAIN[5:0]			63	32	uPD64015
363	YGC Auto Mode Select YGCAUTO			1	0	uPD64015
364	YGC Manual Gain Value Setting YGCVAL[6:0]			127	58	uPD64015
365	YGC Select YGCOFF			1	0	uPD64015
366	YGC Control Mode Select1 YGCMVS			1	0	uPD64015
367	Progressive Y Signal Gain Select YPGAINS[1:0]			3	1	uPD64015
368	YGC Control Mode Select YGCAVAL[6:0]			31	9	uPD64015
369	YGC Control Mode Select2 MAXIIRS			1	0	uPD64015
370	DC Level Control Mode Select PEDIIRS[1:0]			3	1	uPD64015
371	YGC Control Mode Select4 YGCIIRS[1:0]			3	1	uPD64015
372	Vertical Sync Signal Slice Level Setting VSYLSE[3:0]	RF		15	10	uPD64015
373		AV		15	10	uPD64015
374		480i/576i		15	10	uPD64015
375	Horizontal Sync Signal Slice Level Setting SYLSE[3:0]	RF		15	9	uPD64015
376		AV		15	9	uPD64015
377		480i/576i		15	9	uPD64015
378	Sync Slice Slice Level Setting for Progressive PSYLSE[3:0]			15	9	uPD64015
379	Vertical Sync Signal Detection Range Setting VDETTIM			1	0	uPD64015
380	Vertical Sync Signal Detection Correction Setting VDETG			1	1	uPD64015
381	Horizontal Sync Signal False Detection Prevention Setting MASKHD			1	1	uPD64015
382	Vertical Sync Output Switching for Digital RGB VDFB			1	0	uPD64015
383	Noise Level Detection Characteristic Setting1 NDUMODE			1	0	uPD64015
384	Noise Level Detection Characteristic Setting2 NDUD2H			1	0	uPD64015
385	Noise Level Detection Sensitivity Setting1 NDUWSC[1:0]			3	1	uPD64015
386	Noise Level Detection Sensitivity Setting2 NDUXSC[1:0]			3	1	uPD64015
387	3 Dimentional Y/C Separate Operation Mode Select NSDS[1:0]			3	0	uPD64015
388	Line Comb Filter Operation Mode YCSV[1:0]			3	0	uPD64015
389	3 Line Comb Select Sensitivity Setting1 VCOMA[1:0]			3	2	uPD64015
390	3 Line Comb Select Sensitivity Setting2 VCOMB[1:0]			3	2	uPD64015
391	Y Trap Filter Characteristic Select (NTSC, PAL) YCSHY[1:0]			3	0	uPD64015
392	C Separate Filter Characteristic Select (NTSC, PAL) YCSHC[1:0]			3	0	uPD64015
393	Chroma Output Filter Processing Select COBPFOFF			1	0	uPD64015
394	Chroma Output Frequency Characteristic Correction Select YCSCOF[2:0]			4	0	uPD64015
395	Y Trap Filter Select (SECAM) YCSSY[2:0]			6	0	uPD64015
396	Vertical Logical Comb Select Sensitivity Setting VLTYPE			1	1	uPD64015
397	C Separate Filter Select (SECAM) YCSSC[2:0]			6	0	uPD64015
398	Aperture Select VAPONV			1	1	uPD64015
399	V Aperture Gain Select VAPG[2;0]	RF		7	2	uPD64015
400		AV		7	5	uPD64015
401		480i/576i		7	3	uPD64015
402	V Aperture Convergent Point Setting VAPI[4:0]			31	20	uPD64015
403	PAL Color Phase Distortion Correction Select PALCFIL[1:0]			3	0	uPD64015
404	Y Signal 2fc Denoising Effect Select YCSY2F[1:0]			3	3	uPD64015
405	Y/C timing for L(6.5) system	RF Main		15	8	uPD64015
406	Trap Filter Select TRF[1:0]			3	0	uPD64015
407	Trap Filter Gain Setting TRGAIN[2:0]			7	0	uPD64015
408	Trap Filter Setting TRPAL			1	0	uPD64015
409	Y/C timing for L'(6.5) system	RF Main		15	8	uPD64015
410	Motion Detection Mode Setting MSS[1:0]			3	0	uPD64015
411	Y Motion Detection Coring Setting DYCOR[3:0]	NTSC		15	2	uPD64015
412	Y Motion Detection Coring Setting DYCOR[3:0]	Except NTSC mode		15	3	uPD64015
413	Y Motion Detection Gain Setting DYGAIN[3:0]	NTSC		15	9	uPD64015
414	Y Motion Detection Gain Setting DYGAIN[3:0]	Except NTSC mode		15	9	uPD64015
415	C Motion Detection Coring Setting DCCOR[3:0]	NTSC		15	3	uPD64015
416	C Motion Detection Coring Setting DCCOR[3:0]	Except NTSC mode		15	2	uPD64015
417	C Motion Detection Gain Setting DCGAIN[3:0]	NTSC		15	6	uPD64015
418	C Motion Detection Gain Setting DCGAIN[3:0]	Except NTSC mode		15	11	uPD64015
419	Motion Detection Characteristic Test1 SELYCLM[1:0]			3	1	uPD64015

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
420	Motion Detection Characteristic Test2 SELDYH2F			1	0	uPD64015
421	Motion Detection Characteristic Test3 SELDCH2F			1	1	uPD64015
422	Motion Detection Characteristic Test6 SELD1FL			1	0	uPD64015
423	Color Demodulation Burst Gate Pulse Range Setting BGP2WD[3:0]			15	10	uPD64015
424	Color Demodulation Burst Gate Pulse Starting Point Setting BGP2ST[3:0]			15	8	uPD64015
425	Demodulation Part Force Killer Setting KILON			1	0	uPD64015
426	Time Constant Setting for Color Demodulation APC APCGAIN[1:0]			3	1	uPD64015
427	Time Constant Setting for Color Demodulation ACC ACCGAIN[1:0]			3	1	uPD64015
428	Control Characteristic Setting for Color Demodulation ACC ACCLIM[3:0]			15	8	uPD64015
429	SECAM Burst Pulse Position Correction SBGTDL[2:0]			7	7	uPD64015
430	PAL Line Detection Strength Setting PIDSTR[4:0]			31	4	uPD64015
431	SECAM Line Detection Strength Setting SIDSTR[4:0]			31	8	uPD64015
432	SECAM System Judgement Strength Setting SDETSTR[7:0]			255	168	uPD64015
433	3DNR Mode Setting NRMODE[1:0]			3	2	uPD64015
434	YNR Process Stop YNRSTOP			1	1	uPD64015
435	YNRLPF Process Yes/No YNRLPFON			1	0	uPD64015
436	YNR Nonlinear Filter Gain Setting YNRGAIN[1:0]			3	2	uPD64015
437	YNR Nonlinear Filter Convergence Level Setting YNRCORE[2:0]			7	3	uPD64015
438	YNR Nonlinear Filter Limit Level Setting YNRLIM[2:0]			7	3	uPD64015
439	YNR Motion Detection between Frames Coring Setting YMVDCORE[3:0]			15	6	uPD64015
440	YNR Motion Detection between Frames Gain Setting YNRMVDG[3:0]			15	6	uPD64015
441	YNR Motion Detection between Frames Setting YNRMDOFF			1	1	uPD64015
442	CNR Process Stop CNRSTOP			1	1	uPD64015
443	CNRLPF Process Yes/No CNRLPFON			1	0	uPD64015
444	CNR Nonlinear Filter Gain Setting CNRGAIN[1:0]			3	3	uPD64015
445	CNR Nonlinear Filter Convergence Level Setting CNRCORE[2:0]			7	3	uPD64015
446	CNR Nonlinear Filter Limit Level Setting CNRLIM[2:0]			7	3	uPD64015
447	CNR Motion Detection between Frames Coring Setting CMVDCORE[3:0]			15	4	uPD64015
448	CNR Motion Detection between Frames Gain Setting CNRMVDG[3:0]			15	4	uPD64015
449	CNR Motion Detection between Frames Setting CNRMDOFF			1	1	uPD64015
450	Setup Level Correction Setting1 STNTSCM	RF		1	0	uPD64015
451		AV(Except 480i/576i)		1	0	uPD64015
452		AV(480i/576i)		1	0	uPD64015
453	Setup Level Correction Setting2 STPALD[2:0]	RF		7	0	uPD64015
454		AV(Except 480i/576i)		7	0	uPD64015
455		AV(480i/576i)		7	0	uPD64015
456	Sub Contrast Adjustment SBCNT[7:0]	RF(M)		255	128	uPD64015
457		RF(BG)		255	128	uPD64015
458		RF(DK)		255	128	uPD64015
459		RF(I)		255	128	uPD64015
460		RF(LL')		255	128	uPD64015
461		AV(Except 480i/576i)		255	128	uPD64015
462		AV(480i/576i)		255	128	uPD64015
463	Sub Color Adjustment for Cb SBCLRU[7:0]	RF		255	128	uPD64015
464		AV(Except 480i/576i)		255	128	uPD64015
465		AV(480i/576i)		255	128	uPD64015
466	Sub Color Adjustment for Cr SBCLRV[7:0]	RF		255	128	uPD64015
467		AV(Except 480i/576i)		255	128	uPD64015
468		AV(480i/576i)		255	128	uPD64015
469	Y Noise Coring1 YCONR[3:0]	NTSC		10	0	uPD64015
470		Except NTSC		10	0	uPD64015
471		480i/576i		10	0	uPD64015
472	C Noise Coring1 CCONR[3:0]	NTSC		8	0	uPD64015
473		Except NTSC		8	4	uPD64015
474		480i/576i		8	0	uPD64015
475	Brightness Signal Noise Coring2 YCORB[3:0]	NTSC		10	0	uPD64015
476		Except NTSC		10	0	uPD64015
477		480i/576i		10	0	uPD64015
478	Brightness Signal Noise Coring2 Control YCOREN	NTSC		1	1	uPD64015
479		Except NTSC		1	1	uPD64015

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
480		480i/576i		1	1	uPD64015
481	Brightness Signal Noise Coring (highpass) YCORH[2:0]	NTSC		7	0	uPD64015
482		Except NTSC		7	0	uPD64015
483		480i/576i		7	0	uPD64015
484	Color-Difference Signal Noise Coring2 CCORB[3:0]	NTSC		10	0	uPD64015
485		Except NTSC		10	0	uPD64015
486		480i/576i		10	0	uPD64015
487	Color-Difference Signal Noise Coring2 Control CCOREN	NTSC		1	0	uPD64015
488		Except NTSC		1	0	uPD64015
489		480i/576i		1	0	uPD64015
490	LTI Correction Amount Adjustment LTIGAIN[3:0]	RF(M)		15	0	uPD64015
491		RF(Except M)		15	0	uPD64015
492		NTSC		15	0	uPD64015
493		Except NTSC		15	1	uPD64015
494		480i/576i		15	0	uPD64015
495	CTI Correction Amount Adjustment CTIGAIN[3:0]	RF(M) *In substitution for M Group Delay of Correction		15	0	uPD64015
496		RF(Except M)		15	0	uPD64015
497		NTSC		15	0	uPD64015
498		Except NTSC		15	7	uPD64015
499		480i/576i		15	0	uPD64015
500	Filter Setting for LTI LTITAP[2:0]	RF(M)		7	2	uPD64015
501		RF(Except M)		7	2	uPD64015
502		NTSC		7	2	uPD64015
503		Except NTSC		7	1	uPD64015
504		480i/576i		7	7	uPD64015
505	Coring Setting for LTI LTICORE[3:0]	NTSC		11	3	uPD64015
506		Except NTSC		11	3	uPD64015
507		480i/576i		11	3	uPD64015
508	Filter Setting for CTI CTITAP[2:0]	RF(M)		7	2	uPD64015
509		RF(Except M)		7	2	uPD64015
510		NTSC		7	2	uPD64015
511		Except NTSC		7	5	uPD64015
512		480i/576i		7	2	uPD64015
513	Coring Setting for CTI CTICORE[3:0]	RF(M)		9	3	uPD64015
514		RF(Except M)		9	3	uPD64015
515		NTSC		9	3	uPD64015
516		Except NTSC		9	3	uPD64015
517		480i/576i		9	3	uPD64015
518	Sharpness Adjustment SHPGAIN[7:0]	RF(M)		255	150	uPD64015
519		RF(BG)		255	150	uPD64015
520		RF(DK)		255	150	uPD64015
521		RF(I)		255	150	uPD64015
522		RF(LL')		255	150	uPD64015
523		TEXT		255	128	uPD64015
524		NTSC(Ex.S Input)→S:#692		255	150	uPD64015
525		Except NTSC(Ex.S Input)→S:#693		255	150	uPD64015
526		480i/576i →576i:#694		255	130	uPD64015
527	Filter Setting for Sharpness SHPCHAR[2:0]	RF		6	3	uPD64015
528		NTSC		6	3	uPD64015
529		Except NTSC		6	3	uPD64015
530		TEXT		6	3	uPD64015
531		480i/576i		6	3	uPD64015
532	Coring Setting for Sharpness SHPCORE[3:0]	RF		10	0	uPD64015
533		NTSC		10	0	uPD64015
534		Except NTSC		10	0	uPD64015
535		TEXT		10	0	uPD64015
536		480i/576i		10	0	uPD64015
537	Luminance Adjustment (First 8Bits) BRIGHT[9:2]	NTSC mode		255	128	uPD64015
538	Luminance Adjustment (First 8Bits) BRIGHT[9:2]	Except NTSC mode		255	128	uPD64015
539	Luminance Adjustment (First 8Bits) BRIGHT[9:2]	480i/576i		255	128	uPD64015

Adj. No	Function		Max. value	Init. Value	Device
	ADJ. Items	Mode			
540	Luminance Adjustment (Last 2Bits) BRIGHT[1:0]	NTSC mode	3	0	uPD64015
541	Luminance Adjustment (Last 2Bits) BRIGHT[1:0]	Except NTSC mode	3	0	uPD64015
542	Luminance Adjustment (Last 2Bits) BRIGHT[1:0]	480i/576i	3	0	uPD64015
543	R-Y Axis Adjustment OFRY[5:0]	NTSC	63	32	uPD64015
544		Except NTSC	63	32	uPD64015
545	Color Adjustment COLORG[7:0]	RF(M)	255	115	uPD64015
546		RF(BG)	255	120	uPD64015
547		RF(DK)	255	120	uPD64015
548		RF(I)	255	120	uPD64015
549		RF(LL')	255	120	uPD64015
550		TEXT	255	128	uPD64015
551		NTSC	255	120	uPD64015
552		Except NTSC	255	123	uPD64015
553		480i/576i	255	128	uPD64015
554	Tint Adjustment HUE[7:0]	RF(M)	255	150	uPD64015
555		RF(Except M)	255	140	uPD64015
556		NTSC(Ex.S Input)→S:#695	255	126	uPD64015
557		Except NTSC(Ex.S Input)→S:#696	255	128	uPD64015
558		480i	255	125	uPD64015
559		576i	255	130	uPD64015
560	Contrast Adjustment CONT[7:0]	NTSC	255	108	uPD64015
561		Except NTSC	255	108	uPD64015
562		480i/576i	255	114	uPD64015
563	APL Detection Line Setting APLWID[5:0]	50Hz	63	0	uPD64015
564		60Hz	63	0	uPD64015
565	APL Detection Time Constant Setting APLCOE[3:0]	50Hz	15	5	uPD64015
566		60Hz	15	5	uPD64015
567	Direct Transmission Rate Correction Amount Setting DCREGAIN[3:0]		15	8	uPD64015
568	Black Stretch Correction Amount Setting BLEXGAIN[5:0]		63	16	uPD64015
569	Black Stretch Correction APL Adaptive Amount ABLEXST[3:0]		15	0	uPD64015
570	Black Stretch Correction Operation Point Setting BLEXST[7:0]		255	0	uPD64015
571	White Peak Correction Amount Setting GAMGAIN[3:0]		15	0	uPD64015
572	White Peak Correction APL Adaptive Amount Setting AGAMGAIN[3:0]		15	0	uPD64015
573	White Peak Correction Operation Point Setting GAMST[7:0]		255	255	uPD64015
574	Black Stretch Correction Setting BLEXCTL		1	0	uPD64015
575	White Peak Correction Setting YGAMCTL		1	0	uPD64015
576	ACL Correction Amount Setting ACLSEN[3:0]		15	0	uPD64015
577	ACL Correction Operation Point Setting ACLST[7:0]		255	255	uPD64015
578	Image Blanking Setting YVBCTL		1	1	uPD64015
579	LPF Characteristic Setting for Color-Difference CR Signal CRLPF[1:0]		3	1	uPD64015
580	LPF Characteristic Setting for Color-Difference Cb Signal CBLPF[1:0]		3	1	uPD64015
581	Burst Gate Pulse Range Setting BGPWD[3:0]	NTSC	15	8	uPD64015
582		Except NTSC	15	8	uPD64015
583	Burst Gate Pulse Starting Point Setting BGPST[3:0]	NTSC	15	8	uPD64015
584		Except NTSC	15	8	uPD64015
585	Killer Level Setting KILLV[3:0]	RF NTSC	15	8	uPD64015
586		RE PAL	15	8	uPD64015
587		RF SECAM	15	8	uPD64015
588		AV NTSC	15	3	uPD64015
589		AV PAL	15	3	uPD64015
590		AV SECAM	15	3	uPD64015
591	Killer Level Setting for Color System Judgement KILLVCTL[3:0]	RF NTSC	15	9	uPD64015
592		RF PAL	15	9	uPD64015
593		RF SECAM	15	9	uPD64015
594		AV NTSC	15	9	uPD64015
595		AV PAL	15	9	uPD64015
596		AV SECAM	15	9	uPD64015
597	Burst Lock PLL Gain Setting FSCFGAN		1	1	uPD64015
598	Phase Error Detection Setting for Burst Lock FSCSYC		1	0	uPD64015
599	Burst Lock PLL Phase Error Detection Level Setting GAINSEL		1	0	uPD64015

Adj. No	Function		Max. value	Init. Value	Device
	ADJ. Items	Mode			
600	Vertical Sync Signal Pull-in Range Select VLIM		1	0	uPD64015
601	V Counter Free Run Setting at No Signal Mode NSGVFRUN		1	1	uPD64015
602	Line Lock Clock Free Run Settng at No Signal Mode NSGFRUN		1	0	uPD64015
603	Vertical Sync Signal Correction VDCOR		1	0	uPD64015
604	Line Lock PLL Gain Setting HPLLG[4:0]	RF	31	3	uPD64015
605	Line Lock PLL Phase Detection Condition Setting HPLLSIG		1	0	uPD64015
606	Line Lock PLL Response Correction Setting HPLLH2		1	1	uPD64015
607	Line Lock PLL Response Correction Coefficient1 HPLLH21[7:0]		255	32	uPD64015
608	Line Lock PLL Response Correction Coefficient2 HPLLH22[7:0]		255	8	uPD64015
609	PWM Select for Clamp PWMSEL[1:0]		3	3	uPD64015
610	Motion Detection Gain Setting D2FGAIN[2:0]	NTSC	7	5	uPD64015
611	Motion Detection Coring Setting D2FCOR[6:0] (3D Comb.= for High/Low&OFF →0)	NTSC mode	127	3	uPD64015
612		Except NTSC mode	127	3	uPD64015
613	Motion Detection Characteristic Test8 C2O	NTSC mode	1	0	uPD64015
614	Offset Substraction Value(NR=ON) for Sharpness Adjustment(#518~522)	RF (NR=ON)	63	50	uPD64015
615	Motion Detection Characteristic Test9 MDMVD	NTSC mode	1	0	uPD64015
616	Motion Detection LPF Setting MVDLPFON		1	0	uPD64015
617	Motion Detection H Black Stretch Setting TESDOT[2:0]	NTSC	7	0	uPD64015
618		Except NTSC	7	0	uPD64015
619	Y Motion Detection Gain Setting CLIPSELY[1:0]	NTSC	3	1	uPD64015
620		Except NTSC mode	3	2	uPD64015
621	C Motion Detection Gain Setting CLIPSELC[1:0]	NTSC	3	3	uPD64015
622		Except NTSC mode	3	3	uPD64015
623	Nonlinear Filter Setting1 NFP_3[3:0]	NTSC	15	3	uPD64015
624		Except NTSC mode	15	5	uPD64015
625	Nonlinear Filter Setting2 NFP_7[3:0]	NTSC	15	7	uPD64015
626		Except NTSC mode	15	9	uPD64015
627	Nonlinear Filter Setting3 NFP_B[3:0]	NTSC	15	10	uPD64015
628		Except NTSC mode	15	10	uPD64015
629	Line Comb Filter Operation Mode YCSV_c[1:0]		3	0	uPD64015
630	3 Line Comb Select Sensitivity Setting1 VCOMA_c[1:0]		3	2	uPD64015
631	3 Line Comb Select Sensitivity Setting2 VCOMB_c[1:0]		3	2	uPD64015
632	BPF Select for Y/C Separate Chroma FIL15ON	NTSC	1	0	uPD64015
633		Except NTSC mode	1	1	uPD64015
634	Logical Comb Bandwidth Setting for Brightness COMB_y	NTSC	1	0	uPD64015
635		Except NTSC mode	1	0	uPD64015
636	Logical Comb Bandwidth Setting for Chroma COMB_c	NTSC	1	0	uPD64015
637		Except NTSC mode	1	0	uPD64015
638	Vertical Logical Comb Select Sensitivity Setting VLTYPE_c	NTSC	1	1	uPD64015
639		Except NTSC mode	1	1	uPD64015
640	Logical Comb Characteristic Select SELU		1	1	uPD64015
641	Setting for 1 Line Chroma Action ONE_CRMA	NTSC	1	0	uPD64015
642		Except NTSC mode	1	1	uPD64015
643	Setting for 1 Line Chroma at Abnormal Condition OCRENNST	NTSC	1	0	uPD64015
644		Except NTSC mode	1	0	uPD64015
645	Narrow Band BPF Setting for Chroma FIL15NAR		1	1	uPD64015
646	1 Line Chroma Detection Gain Setting V1PSEL[7:0]	PAL	255	64	uPD64015
647		NTSC	255	64	uPD64015
648		SECAM	255	64	uPD64015
649		PAL-M	255	64	uPD64015
650		PAN-N	255	64	uPD64015
651	1 Line Chroma Coring Setting ONE_CROCOR[7:0]	PAL	255	64	uPD64015
652		NTSC	255	64	uPD64015
653		SECAM	255	64	uPD64015
654		PAL-M	255	64	uPD64015
655		PAN-N	255	64	uPD64015
656	SECAM Filter Setting SDIEF_SEL[1:0]	RF	3	0	uPD64015
657		AV	3	0	uPD64015
658	Trap Filter Setting at Abnormal Condition TRENNST	RF	1	0	uPD64015
659		AV	1	0	uPD64015

Adj. No	Function		Max. value	Init. Value	Device
	ADJ. Items	Mode			
660	Y/C timing for M(4.5) system	RF-Main	15	6	uPD64015
661	Y/C timing for (5.5MHz PAL/NTSC4.43) system	RF Main	15	8	uPD64015
662	Y/C timing for (5.5MHz SECAM) system	RF Main	15	8	uPD64015
663	Y/C timing for (6.0MHz PAL/NTSC4.43) system	RF Main	15	8	uPD64015
664	Y/C timing for (6.0MHz SECAM) system	RF Main	15	8	uPD64015
665	DAC Output Imapge Sync Comparison Setting DACLEVEL		1	0	uPD64015
666	Blanking Period Level Setting INBLK50IRE		1	0	uPD64015
667	Line Lock PLL Gain Setting HPLLG[4:0]	AV	31	6	uPD64015
668	Motion Detection Gain Setting D2FGAIN[2:0]	Except NTSC mode	7	5	uPD64015
669	Y/C timing for (6.5MHz PAL/NTSC4.43) system	RF Main	15	8	uPD64015
670	HS Phase Setting for RGB Mix HSYNCDLY	TEXT-1 Picture	1	1	uPD64015
671	Latter Part VS Phase Setting for RGB Mix VSDLY		1	0	uPD64015
672	SG Color Setting SGCOLOR[2:0]		7	0	uPD64015
673	SG Mode Setting (0:OFF/1:Ramp/2:Raster/3:STEP/4:BAR[75%]/5:[100%])		5	0	uPD64015
674	Y/C timing for (6.5MHz SECAM) system	RF Main	15	8	uPD64015
675	SG Level Setting SGPEDLEV		1	0	uPD64015
676	dummy		-	-	-
677	Motion Detection Characteristic Test8 C2O	Except NTSC mode	1	0	uPD64015
678	Motion Detection Characteristic Test9 MDMVD	Except NTSC mode	1	0	uPD64015
679	Color Processing Status SETCOLOR[3:0] (READ Value)		-	-	uPD64015
680	Color System Detection Mode MODDET (READ Value)		-	-	uPD64015
681	Composite V Judgement-Input (0:no signal/1:50Hz/2:60Hz)		-	-	uPD64015
682	Composite V Judgement-Result (1:50Hz/2:60Hz)		-	-	uPD64015
683	No Signal Detection Characteristic Setting SIGDETLV		1	1	uPD64015
684	Image Input Signal Status Setting SIGON		1	0	uPD64015
685	Image Input Signal Status Setting SIGOFF		1	0	uPD64015
686	Field Frequency Setting TV50F		1	0	uPD64015
687	Field Frequency Setting TV60F		1	0	uPD64015
688	50 Hz Image Signal Sub Carrier 504M		1	0	uPD64015
689	50 Hz Image Signal Sub Carrier 503M		1	0	uPD64015
690	COLOR SYSTEM Judgement Method (0:Normal/1:System1&2 Correction has no effect)		1	0	uPD64015
691	Sharpness Gain(TEXT-2 pictures)	Sub	15	0	TB1274
692	Sharpness Adjustment SHPGAIN[7:0]	NTSC(S Input) Separate from #524	255	180	uPD64015
693		Except NTSC(S Input) Separate from #525	255	180	uPD64015
694		576i Separate from #526	255	130	uPD64015
695	Tint Adjustment HUE[7:0]	NTSC(S Input) Separate from #556	255	130	uPD64015
696		Except NTSC(S Input) Separate from #557	255	124	uPD64015
697	DCBLV (COOL)		1	1	PDP
698	DCBLV (NORMAL/WARM/B&W)		1	0	PDP
699	DCBLV (RGB)		1	0	PDP
700	Mode display 0:Normal, 1:RF mode only, 2:All		2	0	M30627
701	Horizontal Position of OSD		15	7	OSD
702	Vertical Position of OSD		15	7	OSD
703	Typical Value of Contrast OSD	DYNAMIC	31	31	M30627
704	Temperature for Fun start (Temp_High)		254	58	TEMP
705	Temperature for Fun stop (Temp_Low)		254	55	TEMP
706	Display of internal temperature °C (Temperature)		125	-	TEMP
707	Power Save/Screen Saver On/Off Setting at Initialize, Reset and Shipping	P.S/S.S 0:Off/20m 1:On/Off 2:Off/Off	2	0	M30627
708	PC Power Save function (0:Impossible, 1:Possible)		1	1	M30627
709	Movement Amount of Image Retention Reduction Operation 0:±2pixel/1:±4pixel/2:±6pixel/3:±10pixel	Adjustment Value is available only during HD single picture mode.	3	0	FC
710	480i,576i switch 0:uPD64015, 1:TA1391(Though)		1	0	TA1391FG
711	Waite Time for POWER SAVE function (s)	VIDEO/PC	254	15	M30627
712	BURN-IN enable/ disenable	0:Disenable, 1:Enable	1	1	M30627
713	BURN-IN mode		2	2	PDP
714	Recovery to an error of OSC frequency of Ceramic resonator for timer		62	34	M30627
715	EURO DK-SECAM MASK(V=60) 0:Normal 1:Mask(V=60)		1	0	-
716	Set Sound System at Auto mode of Sound Sys. (0:auto, 1:4.5MHz)	Main	1	0	M30627
717	Power condition at power save mode of PC mode after done RESET function	0:Keep last condition, 1:Return to normal condition	1	0	M30627
718	Select Wide mode for Europe model (Normal= 5mode/ For Service= 10 mode)	0:Normal, 1:For service	1	0	M30627
719	Thermo sensor function available or not 0:None, 1:Yes		1	0	M30627

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
720	EURO SOUND SYSTEM DK Disable 0:Enable, 1Disable			1	0	M30627
721	Remote Function available 0:NO, 1:YES			1	1	M30627
722	Key Function available 0:NO, 1:YES			1	1	M30627
723	Terminal Mode Function available 0:Not Available, 1:Available	RS232C		1	1	M30627
724	Set Taiwan/Korea/South America 0:Others 1: Taiwan/Korea/South America			1	0	M30627
725	Language (Refer to below)			10	0	M30627
726	Hotel Mode(0:No, 1:Yes)			2	0	M30627
727	Initial Audio Level available (0:No 1: Yes)			1	0	M30627
728	Initial Audio Level			63	20	M30627
729	Size button available (0:No 1:Yes)			1	1	M30627
730	Multi Picture button available (0:No 1:Yes)			1	1	M30627
731	Photo button available (0:No 1:Yes)			1	1	M30627
732	Set LCD Panel 0:LG 1:DP	For LCD Panel		1	0	M30627
733	Analog Data (0:Keep EEPROM, 1:Not Keep to EEPROM)			1	0	M30627
734	Maximum Volume Limit			63	63	M30627
735	Power Mode(0:Last mode, 1:Pos1, 2-7:V1-6, 8-9:RGB1-2)			9	0	M30627
736	Channel Select (0:CCIR, 1:CHINA)			1	0	M30627
737	Auto_sound 4.5 (0:Korea, 1:BTSC, 2:Japan)			2	0	M30627
738	T/TEXT(0:None, 1:Yes)			1	1	M30627
739	Channel Preset(0:VESTEL, 1:GIFU, 2:HAMA, 3:HFDM, 4:AUSTRALIA)			4	1	M30627
740	Australia Preset 0: None, 1: yes			1	0	M30627
741	V FREQ 60Hz Force (0:None, 1:Yes)			1	0	M30627
742	dummy			-	-	-
743	dummy			-	-	-
744	PDP-BLK ON/OFF	1:ON, 0:OFF		1	0	PDP
745	IIC BUS Data/Clock Open(0:Close, 1:Open)			1	0	M30627
746	Gray level of BM	Index		31	4	BM
747	Display of BM version			127	-	BM
748	TA1391: SYNC SW Change	0:SYNC, 1:HDVD1&2		1	0	M30627
749	f V Number of time on Judgement Conformance(M30625/TA1370)	-		31	2	M30627
750	f V Number of time on Judgement Conformance(M30625/TA1370)	-		31	2	M30627
751	f V Number of time on Judgement Conformance(TB1274)	-		31	2	M30627
752	Lower Limits value for Sync Detect of 2ms interval	For AFC at TV mode		254	25	M30627
753	Lower Limits value for Sync Detect of 2ms interval	For Free Running at TV mode		254	30	M30627
754	Lower Limits value for Sync Detect of 2ms interval	For AUTO OFF at TV mode		254	25	M30627
755	Lower Limits value for Sync Detect of 2ms interval	For Free Running at AV mode		254	30	M30627
756	Lower Limits value for Sync Detect of 2ms interval	For Power Save at AV mode		254	25	M30627
757	Upper Limits Value for Sync Detect of 2ms interval	For AFC at TV mode		254	40	M30627
758	Upper Limits Value for Sync Detect of 2ms interval	For Free Running at TV mode		254	45	M30627
759	Upper Limits Value for Sync Detect of 2ms interval	For AUTO OFF at TV mode		254	35	M30627
760	Upper Limits Value for Sync Detect of 2ms interval	For Free Running at AV mode		254	45	M30627
761	Upper Limits Value for Sync Detect of 2ms interval	For Power Save at AV mode		254	45	M30627
762	COLOR SYSTEM CONTROL-MODE(0:BW, 2:3.58NTSC, 3:4.43NTSC, •••)	Main		-	-	M30627
763	COLOR SYSTEM CONTROL-MODE(0:BW, 2:3.58NTSC, 3:4.43NTSC, •••)	Sub		-	-	M30627
764	2msSync Judgement Count Value	Main		-	-	M30627
765	2msSync Judgement Count Value	Sub		-	-	M30627
766	TB1274 Read Data(00h)	Sub		-	-	TB1274
767	TB1274 Read Data(01h)	Sub		-	-	TB1274
768	MSP Read Data (CNTROL) (D15-D8)			-	-	MSP3455G
769	MSP Read Data (CNTROL) (D 7-D0)			-	-	MSP3455G
770	MSP Read Data (STANDARD_RES) (D15-D8)			-	-	MSP3455G
771	MSP Read Data (STANDARD_RES) (D 7-D0)			-	-	MSP3455G
772	MSP Read Data (STATUS) (D15-D8)			-	-	MSP3455G
773	MSP Read Data (STATUS) (D 7-D0)			-	-	MSP3455G
774	TA1391FG Read Data(00h)			-	-	TA1391FG
775	TA1391FG Read Data(01h)			-	-	TA1391FG
776	TA1391FG Read Data(02h)			-	-	TA1391FG
777	TA1391FG Read Data(03h)			-	-	TA1391FG
778	TA1391FG Read Data(04h)			-	-	TA1391FG
779	TA1391FG Read Data(05h)			-	-	TA1391FG

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
780	TA1391FG Read Data(06h)			-	-	TA1391FG
781	TA1391FG Read Data(07h)			-	-	TA1391FG
782	SiI9021 Read Data SYNC1 : VSYNC/Clock detect/Sync detect 1			-	-	HDMI
783	SiI9021 Read Data NHRDL1 : N hardware value 1 Last 7Bits			-	-	HDMI
784	SiI9021 Read Data NHRDM1 : N hardware value 1 Middle 7Bits			-	-	HDMI
785	SiI9021 Read Data NHRDH1 : N hardware value 1 First 4Bits			-	-	HDMI
786	SiI9021 Read Data CHRDL1 : CTS hardware value 1 Last 7Bits			-	-	HDMI
787	SiI9021 Read Data CHRDM1 : CTS hardware value 1 Middle 7Bits			-	-	HDMI
788	SiI9021 Read Data CHRDH1 : CTS hardware value 1 First 4Bits			-	-	HDMI
789	SiI9021 Read Data ACR1 : ACR PLL hardware value 1			-	-	HDMI
790	SiI9021 Read Data ACRS1 : ACR PLL hardware value 1 Depends on Source Side			-	-	HDMI
791	SiI9021 Read Data SFREQ1 : "Extracted Sampling Frequency 1 channel status b24-27(same value at 0x30)"			-	-	HDMI
792	SiI9021 Read Data CLKFRQ1: Clock Accuracy/Sampling Frequency 1			-	-	HDMI
793	SiI9021 Read Data ALNG1 : Audio length/Audio length max 1			-	-	HDMI
794	SiI9021 Read Data MT_MD1 : AV mute/HDMI mode 1			-	-	HDMI
795	SiI9021 Read Data VTYP1 : AVI infoframe type code 1 (Requested)			-	-	HDMI
796	SiI9021 Read Data VVER1 : AVI infoframe version code 1(Requested)			-	-	HDMI
797	SiI9021 Read Data VINFO11: AVI infoframe data 1			-	-	HDMI
798	SiI9021 Read Data VINFO21:			-	-	HDMI
799	SiI9021 Read Data VINFO31:			-	-	HDMI
800	SiI9021 Read Data VINFO41:			-	-	HDMI
801	SiI9021 Read Data VINFO51:			-	-	HDMI
802	SiI9021 Read Data ATYP1 : AUDIO InfoFrame Type Code 1 (Requested)			-	-	HDMI
803	SiI9021 Read Data AVER1 : AUDIO InfoFrame Version Code 1 (Requested)			-	-	HDMI
804	SiI9021 Read Data AINFO11: AUDIO InfoFrame Data Bytes 1			-	-	HDMI
805	SiI9021 Read Data AINFO21:			-	-	HDMI
806	SiI9021 Read Data AINFO31:			-	-	HDMI
807	SiI9021 Read Data AINFO41:			-	-	HDMI
808	SiI9021 Read Data AINFO51:			-	-	HDMI
809	PANORAMIC1/2 for AUTO[PANORAMIC]	PANORAMIC1[0]/2[1]		1	0	-
810	Set upper limit value(%) of stable picture of DTT	0:always invalid ,1:100%,2:80%,3:60%, 4:40%,5:20%,6:0% (always effective)		6	0	M30627
811	T/Text Debug mode			2	2	SDA6000
812	Eye-Height-Optimisation BIT_7..BIT_0[7:0]	0:Disabled, 1:Enabled		1	0	SDA6000
813	Local time offset LTO_4-LTO_0[4:0]			31	0	SDA6000
814	Local time offset SIGN[7:5]			7	0	SDA6000
815	T/Text Station Name Timeout	×80ms		255	80	-
816	T/Text Display H position [Byte 1]	One screen is for exclusive use		255	28	SDA6000
817	T/Text Display H position [Byte 1]	Two screens are for exclusive use		255	129	SDA6000
818	T/Text Display H position at side panel mode [Byte 2]			255	0	SDA6000
819	T/Text Display H position at side panel mode [Byte 3]			255	33	SDA6000
820	T/Text Display V position [Byte 5]	One screen is for exclusive use		255	15	SDA6000
821	T/Text Display V position [Byte 5]	Two screens are for exclusive use		255	0	SDA6000
822	T/Text pixel frequency for normal mode [Byte 6]			255	1	SDA6000
823	T/Text pixel frequency for normal mode [Byte 7]			255	64	SDA6000
824	T/Text pixel frequency for side panel mode [Byte 8]			255	3	SDA6000
825	T/Text pixel frequency for side panel mode [Byte 9]			255	32	SDA6000
826	GAM_RS	0:old map 1:new map(range)		1	1	PDP
827	N-APSON	0:OFF 1:ON		1	1	PDP
828	B-APSON	0:OFF 1:ON		1	0	PDP
829	SPDOFF 0:ON, 1:OFF	Dynamic mode		1	0	PDP
830	SPDOFF 0:ON, 1:OFF	Normal mode		1	0	PDP
831	SPDOFF 0:ON, 1:OFF	Cinema mode		1	0	PDP
832	C3OTON(NORMAL/WARM/B/W)	1:ON, 0:OFF		1	1	PDP
833	C3OTLV(NORMAL/WARM/B/W)	1:Standard, 0:Weak		1	0	PDP
834	Sub Contrast 1	Scart-RGB(50/60Hz)		15	0	TA1391FG
835	DTT-TEXT Analog/Digital SW (for Continental Model)	0:Analog, 1:Digital		1	0	-
836	For Event Timer Function check 0:Normal(Off), 1:High, 2:Middle			2	0	-
837	C3TBL_SEL_B			1	0	PDP

Adj. No	Function			Max. value	Init. Value	Device
	ADJ. Items	Mode				
838	C3TBL_SEL_G			1	0	PDP
839	C3OTLEV_SEL_B			3	0	PDP
840	C3OTLEV_SEL_G			3	0	PDP
841	C3OTLEV_SEL_R			3	0	PDP
842	Reserved for EURO			-	-	-
843	Reserved for EURO			-	-	-
844	Reserved for EURO			-	-	-
845	Reserved for EURO			-	-	-
846	Reserved for EURO			-	-	-
847	Reserved for EURO			-	-	-
848	Reserved for EURO			-	-	-
849	Reserved for EURO			-	-	-
850	Reserved for EURO			-	-	-
851	Reserved for EURO			-	-	-
852	Reserved for EURO			-	-	-
853	Reserved for EURO			-	-	-
854	Reserved for EURO			-	-	-
855	Reserved for EURO			-	-	-
856	Reserved for EURO			-	-	-
857	Reserved for EURO			-	-	-
858	Reserved for EURO			-	-	-
859	Reserved for EURO			-	-	-
860	Reserved for EURO			-	-	-
861	Reserved for EURO			-	-	-
862	Reserved for EURO			-	-	-
863	Reserved for EURO			-	-	-
864	Reserved for EURO			-	-	-
865	Reserved for EURO			-	-	-
866	Reserved for EURO			-	-	-
867	Reserved for EURO			-	-	-
868	Reserved for EURO			-	-	-
869	Reserved for EURO			-	-	-
870	Reserved for EURO			-	-	-
871	Reserved for EURO			-	-	-
872	Reserved for EURO			-	-	-
873	Reserved for EURO			-	-	-
874	Reserved for EURO			-	-	-
875	Reserved for EURO			-	-	-
876	Reserved for EURO			-	-	-
877	Reserved for EURO			-	-	-
878	Reserved for EURO			-	-	-
879	Reserved for EURO			-	-	-
880	Reserved for EURO			-	-	-
881	Reserved for EURO			-	-	-
882	Reserved for EURO			-	-	-
883	Reserved for EURO			-	-	-
884	Reserved for EURO			-	-	-
885	Reserved for EURO			-	-	-
886	T/Text Sleep mode Enable	1:Enable		1	1	-
887	T/Text decoder SCL Time-out check	0:Normal, 1:Over 10ms		-	-	SDA6000
888	RS232C Terminal control mode 0:Terminal Mode, 1:DTT software update			1	0	M30627
889	SiI9021 Read Data H-RES(H) Decimal mark ×100			-	-	HDMI
890	SiI9021 Read Data H-RES(L) Decimal mark ×1			-	-	HDMI
891	SiI9021 Read Data V-RES(H) Decimal mark ×100			-	-	HDMI
892	SiI9021 Read Data V-RES(L) Decimal mark ×1			-	-	HDMI
893	Reset function of accumulation time for WVGA/LCD Panel	0:Normal 1:Reset		1	0	M30627
894	Accumulation time for Panel (hours)			65535	-	PDP
895	Display of Panel map version			255	-	PDP
896	W/B Initialize			1	-	M30627
897	Gain adjustment of RGB amplifier (FLAON)	Main		-	-	FC
898	EEPROM Initialize(0:No, 1:Yes)			1	0	M30627
899	Enter to SUB adjust menu			-	-	M30627
900	Enter to service menu of FC sub mi-con			-	-	FC

● Service adjustment items by I²C-bus control (SUB adjust menu)

(*The change to a sub menu. press “ok” key after no.899 with a main menu)

Adj. No	Function		Max.	Init. Value	Device
	ADJ. Items	Mode			
0	R DRIVE1 [RF/VIDEO/HDMI]	COOL	255	255	PDP/FC
1	G DRIVE1 [RF/VIDEO/HDMI]	COOL	255	255	PDP/FC
2	B DRIVE1 [RF/VIDEO/HDMI]	COOL	255	255	PDP/FC
3	R DRIVE2 [RF/VIDEO/HDMI]	NORMAL	255	255	PDP/FC
4	G DRIVE2 [RF/VIDEO/HDMI]	NORMAL	255	255	PDP/FC
5	B DRIVE2 [RF/VIDEO/HDMI]	NORMAL	255	255	PDP/FC
6	R DRIVE3 [RF/VIDEO/HDMI]	WARM	255	255	PDP/FC
7	G DRIVE3 [RF/VIDEO/HDMI]	WARM	255	255	PDP/FC
8	B DRIVE3 [RF/VIDEO/HDMI]	WARM	255	255	PDP/FC
9	R DRIVE4 [RF/VIDEO/HDMI]	BLACK & WHITE	255	255	PDP/FC
10	G DRIVE4 [RF/VIDEO/HDMI]	BLACK & WHITE	255	255	PDP/FC
11	B DRIVE4 [RF/VIDEO/HDMI]	BLACK & WHITE	255	255	PDP/FC
12	R DRIVE1 [DSUB-RGB]	COOL	255	255	PDP/FC
13	G DRIVE1 [DSUB-RGB]	COOL	255	255	PDP/FC
14	B DRIVE1 [DSUB-RGB]	COOL	255	255	PDP/FC
15	R DRIVE2 [DSUB-RGB]	NORMAL	255	255	PDP/FC
16	G DRIVE2 [DSUB-RGB]	NORMAL	255	255	PDP/FC
17	B DRIVE2 [DSUB-RGB]	NORMAL	255	255	PDP/FC
18	R DRIVE3 [DSUB-RGB]	WARM	255	255	PDP/FC
19	G DRIVE3 [DSUB-RGB]	WARM	255	255	PDP/FC
20	B DRIVE3 [DSUB-RGB]	WARM	255	255	PDP/FC
21	R DRIVE4 [DSUB-RGB]	BLACK & WHITE	255	255	PDP/FC
22	G DRIVE4 [DSUB-RGB]	BLACK & WHITE	255	255	PDP/FC
23	B DRIVE4 [DSUB-RGB]	BLACK & WHITE	255	255	PDP/FC
24	R DRIVE3 OFFSET (0[-128] ~ 128[±0] ~ 255[+127])	WARM	255	128	-
25	G DRIVE3 OFFSET (0[-128] ~ 128[±0] ~ 255[+127])	WARM	255	110	-
26	B DRIVE3 OFFSET (0[-128] ~ 128[±0] ~ 255[+127])	WARM	255	72	-
27	R DRIVE4 OFFSET (0[-128] ~ 128[±0] ~ 255[+127])	BLACK & WHITE	255	128	-
28	G DRIVE4 OFFSET (0[-128] ~ 128[±0] ~ 255[+127])	BLACK & WHITE	255	89	-
29	B DRIVE4 OFFSET (0[-128] ~ 128[±0] ~ 255[+127])	BLACK & WHITE	255	45	-
30	Brightness Center (CM)	NTSC/PAL/Multi	254	128	FC
31	Brightness Center (CM)	Scart-RGB(50/60Hz)	254	128	FC
32	Brightness Center (CM)	480i/576i/480p/576p	254	128	FC
33	Brightness Center (CM)	1080i-50/60/720p	254	124	FC
34	Brightness Center (CM)	→HDMI	254	128	FC
35	Brightness Center (CM)	DTT	254	125	FC
36	Brightness Center (CM)	DSUB-RGB	254	128	FC
37	Brightness Center (CM)	Expand DSUB-RGB (Reserved)	254	128	FC
38	Brightness center (CM) offset	AV1	254	127	FC
39	Brightness center (CM) offset	AV2	254	127	FC
40	Brightness center (CM) offset	AV3	254	127	FC
41	Brightness center (CM) offset	AV4	254	127	FC
42	Brightness center (CM) offset	AV5	254	127	FC
43	→#223 ~		-	-	-
44	Color Center (CM)	→480p/576p	127	75	FC
45	Color Center (CM)	Scart-RGB(50/60Hz)	127	70	FC
46	Color Center (CM)	HD(YPbPr)(50/60Hz)	127	60	FC
47	Color Center (CM)	→HDMI(480i/576i/480p/576p)	127	60	FC
48	Color Center (CM)	→HDMI(1080i-50/60/720p-50/60)	127	60	FC
49	Color Center (CM)	→HDMI(VGA)	127	62	FC
50	Color Center (CM)	DTT	127	60	FC
51	Color Center (CM)	DSUB-RGB	127	64	FC
52	→#229 ~		-	-	-
53	Tint Center (CM)	Scart-RGB(50Hz)	254	128	FC
54	Tint Center (CM)	Scart-RGB(60Hz)	254	128	FC
55	Tint Center (CM)	→576p	254	123	FC
56	Tint Center (CM)	→480p	254	116	FC
57	Tint Center (CM)	HD(YPbPr)(50/60Hz)	254	110	FC
58	Tint Center (CM)	HDMI-YCbCr(50Hz:576i/576p)	254	126	FC
59	Tint Center (CM)	HDMI-YCbCr(60Hz:480i/480p)	254	126	FC

Adj. No	Function			Max.	Init. Value	Device
	ADJ. Items	Mode				
60	Tint Center (CM)	HDMI-YPbPr(1080i-50/60/720p)		254	135	FC
61	Tint Center (CM)	→HDMI(VGA)		254	128	FC
62	Tint Center (CM)	DTT		254	128	FC
63	Tint Center (CM)	DSUB-RGB		254	128	FC
64	Center of Sharpness (HV Enhancer Gain for Y)	RF		31	10	FC
65	Center of Sharpness (HV Enhancer Gain for Y)	VIDEO		31	15	FC
66	Center of Sharpness (HV Enhancer Gain for Y)	Scart-RGB(50/60Hz)		31	18	FC
67	Center of Sharpness (HV Enhancer Gain for Y)	480i/576i		31	15	FC
68	Center of Sharpness (HV Enhancer Gain for Y)	480p/576p		31	15	FC
69	Center of Sharpness (HV Enhancer Gain for Y)	720p		31	6	FC
70	Center of Sharpness (HV Enhancer Gain for Y)	1080i-50/60		31	6	FC
71	Center of Sharpness (HV Enhancer Gain for Y)	TEXT(for split)		31	19	FC
72	Center of Sharpness (HV Enhancer Gain for Y)	→HDMI(480i/576i)		31	8	FC
73	Center of Sharpness (HV Enhancer Gain for Y)	→HDMI(480p/576p)		31	10	FC
74	Center of Sharpness (HV Enhancer Gain for Y)	→HDMI(720p-50/60)		31	5	FC
75	Center of Sharpness (HV Enhancer Gain for Y)	→HDMI(1080i-50/60)		31	5	FC
76	Center of Sharpness (HV Enhancer Gain for Y)	→HDMI(VGA)		31	10	FC
77	Center of Sharpness (HV Enhancer Gain for Y)	DTT		31	20	FC
78	Contrast Center (CM)	RF		254	137	FC
79	Contrast Center (CM)	AV1		254	137	FC
80	Contrast Center (CM)	AV2		254	137	FC
81	Contrast Center (CM)	AV3		254	137	FC
82	Contrast Center (CM)	AV4		254	137	FC
83	Contrast Center (CM)	AV5		254	137	FC
84	Contrast Center (CM)	→HDMI(With Setup)		254	149	FC
85	Contrast Center (CM)	→HDMI(Without Setup)		254	128	FC
86	Contrast Center (CM)	DTT		254	137	FC
87	Contrast Center (CM)	DSUB-RGB		254	128	FC
88	Contrast Center (CM)	Expand DSUB-RGB (Reserved)		254	128	FC
89	Maximum Value of Contrast at REAL/NORMAL mode			254	188	FC
90	Offset Value of Contrast data at SPLIT mode			120	53	FC
91		→#220 ~ 222		-	-	-
92	Horizontal Enhance	TEXT		3	3	FC
93	Vertical Enhance	TEXT		3	3	FC
94	Horizontal Filter Switching [HHPF0]	NTSC/480i		1	0	FC
95	(Enlargement Adaptive Enhancer)[HHPF1]	PAL/576i		1	0	FC
96	[HHPF2]	480p/576p/1080i-50/60/720p		1	0	FC
97	Horizontal Coring Amount [HECOR1]	NTSC-RF		15	3	FC
98	(Enlargement Adaptive Enhancer)[HECOR2]	PAL-RF/Multi		15	2	FC
99	[HECOR3]	NTSC-VIDEO		15	1	FC
100	[HECOR4]	PAL-VIDEO		15	1	FC
101	[HECOR5']	Scart-RGB(50/60Hz)		15	15	FC
102	[HECOR5]	480i/576i		15	15	FC
103	[HECOR6]	480p/576p		15	15	FC
104	[HECOR7]	1080i-50/60/720p		15	1	FC
105	[HECOR5']	DTT		15	15	FC
106	[HECORPC]	PC		15	1	FC
107	Vertical Coring Amount [VECOR1]	NTSC-RF		15	1	FC
108	(Enlargement Adaptive Enhancer)[VECOR2]	PAL-RF/Multi		15	8	FC
109	[VECOR3]	NTSC-VIDEO		15	1	FC
110	[VECOR4]	PAL-VIDEO		15	1	FC
111	[VECOR5']	Scart-RGB(50/60Hz)		15	0	FC
112	[VECOR5]	480i/576i		15	0	FC
113	[VECOR6]	480p/576p		15	0	FC
114	[VECOR7]	1080i-50/60/720p		15	15	FC
115	[VECOR5']	DTT		15	15	FC
116	[VECORPC]	PC		15	0	FC
117	Enhancer gain of VH for C	TEXT		31	31	FC
118	Coring Amplitude for Y/G [YC0R0]	NTSC/PAL-RF/Multi		7	2	FC
119	[YC0R1]	NTSC/PAL-VIDEO		7	0	FC

Adj. No	Function			Max.	Init. Value	Device
	ADJ. Items	Mode				
120	[YC0R2]	480i/576i/Scart-RGB(50/60Hz)		7	1	FC
121	[YC0R3]	480p/576p		7	1	FC
122	[YC0R4]	1080i-50/60/720p		7	1	FC
123	[YC0R5]	NTSC/PAL- S Input		7	4	FC
124	[YC0R2']	DTT		7	4	FC
125	Coring Amplitude for B-Y/B, R-Y/R [CC0R0]	NTSC/PAL/480i/576i/Multi		7	1	FC
126	[CC0R1]	480p/576p/1080i-50/60/720p		7	1	FC
127	Main YFRNR Input Gain 2 Picture [MYNRG0]	Except HD-HD		7	1	FC
128	(Sub Side of HD-NTSC, HD-PAL) [MYNRG1]	HD-HD		7	4	FC
129	4 Picture [MYNRG2]	NT-* /PAL-*		7	1	FC
130	[MYNRG3]	HD-*		7	4	FC
131	Sub YFRNR Input Gain [YCNRG0]	2 Picture		7	4	FC
132	[YCNRG1]	4 Picture/12 Picture		7	1	FC
133	Main CFRNR Input Gain 2 Picture [MCNRG0]	Except HD-HD		7	3	FC
134	(Sub Side of HD-NTSC, HD-PAL) [MCNRG1]	HD-HD		7	4	FC
135	[MCNRG2]	NT-* /PAL-*		7	4	FC
136	[MCNRG3]	HD-*		7	4	FC
137	Sub CFRNR Input Gain [SCNRG0]	2 Picture		7	3	FC
138	[SCNRG1]	4 Picture/12 Picture		7	4	FC
139	Vertical Enhancer Gain for Y/G [YVEG0]	NTSC/PAL(Except-RF)/480i/576i		15	15	FC
140	[YVEG1]	480p/576p		15	4	FC
141	[YVEG2]	1080i-50/60/720p		15	15	FC
142	[YVEG3]	PAL(-RF)/Multi		15	15	FC
143	[YVEG0']	DTT		15	15	FC
144	Vertical DSB Gain for Y/G [YVDSBG0]	NTSC/PAL/480i/576i/Multi		3	3	FC
145	[YVDSBG1]	480p/576p		3	0	FC
146	[YVDSBG2]	1080i-50/60/720p		3	2	FC
147	[YVDSBG0']	DTT		3	3	FC
148	Vertical DSB Coring for Y/G [YVDSBC0]	NTSC/PAL/480i/576i/Multi		7	7	FC
149	[YVDSBC1]	480p/576p/1080i-50/60/720p		7	0	FC
150	[YVDSBC0']	DTT		7	7	FC
151	Vertical Enhancer CLIP for Y/G 0:LTI [YVECLP0]	NTSC/PAL/480i/576i/Multi		1	1	FC
152	[YVECLP1]	480p/576p/1080i-50/60/720p		1	0	FC
153	Vertical CLIP Offset Level for Y/G [YVECLPL0]	NTSC/PAL/480i/576i/Multi		15	15	FC
154	[YVECLPL1]	480p/576p/1080i-50/60/720p		15	8	FC
155	[YVECLPL0']	DTT		15	15	FC
156	Vertical Nonlinear Peaking for Y/G [YVNLP0]	NTSC/PAL/480i/576i/Multi		63	0	FC
157	[YVNLP1]	480p/576p/1080i-50/60/720p		63	0	FC
158	Horizontal Enhancer Gain for Y/G [YHEG0]	NTSC/PAL(Except-RF)/480i/576i		15	10	FC
159	[YHEG1]	480p/576p		15	8	FC
160	[YHEG2]	1080i-50/60/720p-60(720p-50↓)		15	15	FC
161	[YHEG2']	720p-50		15	5	FC
162	[YHEG3]	PAL(-RF)/Multi		15	15	FC
163	[YHEG0']	DTT		15	8	FC
164	Horizontal DSB Gain for Y/G [YHDSBG0]	NTSC/PAL/480i/576i/Multi		3	2	FC
165	[YHDSBG1]	480p/576p		3	2	FC
166	[YHDSBG2]	1080i-50/60/720p		3	2	FC
167	[YHDSBG0']	DTT		3	2	FC
168	Horizontal DSB Coring for Y/G [YHDSBC0]	NTSC/PAL/480i/576i/Multi		7	7	FC
169	[YHDSBC1]	480p/576p/1080i-50/60/720p		7	7	FC
170	[YHDSBC0']	DTT		7	7	FC
171	Horizontal Enhancer CLIP for Y/G 0:LTI [YHDSBC0]	NTSC/PAL/480i/576i/Multi		1	0	FC
172	[YHDSBC1]	480p/576p/1080i-50/60/720p		1	0	FC
173	Horizontal CLIP Offset level for Y/G [YHECLPL0]	RF/Multi		15	4	FC
174	[YHECLPL1]	NTSC/PAL-VIDEO		15	4	FC
175	[YHECLPL3]	480i/576i/Scart-RGB(50/60Hz)		15	4	FC
176	[YHECLPL2]	480p/576p/1080i-50/60/720p		15	8	FC
177	[YHECLPL0']	DTT		15	5	FC
178	Horizontal Nonlinear Peaking for Y/B [YHNLP0]	NTSC/PAL/480i/576i/Multi		63	0	FC
179	[YHNLP1]	480p/576p/1080i-50/60/720p		63	0	FC

Adj. No	Function			Max.	Init. Value	Device
	ADJ. Items	Mode				
180	Horizontal HPF Peak Frequency Switching for Y/G [YHHPF0]	NTSC/PAL/480i/576i/Multi		3	2	FC
181	[YHHPF1]	480p/576p		3	2	FC
182	[YHHPF2]	1080i-50/60/720p		3	2	FC
183	Initial value of Contrast (Degradation Reduction1)	Extend 1 of Panel Life function		127	93	PDP/FC
184	Interval time of correction time (Degradation Reduction1)	Extend 1 of Panel Life function		127	10	PDP/FC
185	Additional value of Contrast (Degradation Reduction1)	Extend 1 of Panel Life function		127	1	PDP/FC
186	Initial value of Contrast (Degradation Reduction2)	Extend 2 of Panel Life function		127	63	PDP/FC
187	Interval time of correction time (Degradation Reduction2)	Extend 2 of Panel Life function		127	6	PDP/FC
188	Additional value of Contrast (Degradation Reduction2)	Extend 2 of Panel Life function		127	1	PDP/FC
189	Power REFerence(RF/VIDEO)			20	12	PDP
190	Power REFerence(DSUB)			20	8	PDP
191	Power High Stress(RF/VIDEO)			3	0	PDP
192	Power High Stress(DSUB)			3	0	PDP
193	Menu Init. Contrast (-31[0] ~ +40[71])	For Dynamic		71	62	-
194	Menu Init. Contrast (-31[0] ~ +40[71])	For Natural		71	62	-
195	Menu Init. Contrast (-31[0] ~ +40[71])	For Cinema		71	31	-
196	Menu Init. Brightness (-31[0] ~ +31[62])	For Dynamic		62	31	-
197	Menu Init. Brightness (-31[0] ~ +31[62])	For Natural		62	31	-
198	Menu Init. Brightness (-31[0] ~ +31[62])	For Cinema		62	31	-
199	Menu Init. Color (-31[0] ~ +31[62])	For Dynamic		62	34	-
200	Menu Init. Color (-31[0] ~ +31[62])	For Natural		62	31	-
201	Menu Init. Color (-31[0] ~ +31[62])	For Cinema		62	21	-
202	Menu Init. Sharpness (-15[0] ~ +15[30])	For Dynamic		30	20	-
203	Menu Init. Sharpness (-15[0] ~ +15[30])	For Natural		30	18	-
204	Menu Init. Sharpness (-15[0] ~ +15[30])	For Cinema		30	15	-
205	Menu Init. Color Temp.(Cool[0]/Normal[1]/Warm[2]/B&W[3])	For Dynamic		3	1	-
206	Menu Init. Color Temp.(Cool[0]/Normal[1]/Warm[2]/B&W[3])	For Natural		3	1	-
207	Menu Init. Color Temp.(Cool[0]/Normal[1]/Warm[2]/B&W[3])	For Cinema		3	2	-
208	Menu Init. Black stretch (Off[0]/Low[1]/Mid.[2]/High[3])	For Dynamic		3	2	-
209	Menu Init. Black stretch (Off[0]/Low[1]/Mid.[2]/High[3])	For Natural		3	2	-
210	Menu Init. Black stretch (Off[0]/Low[1]/Mid.[2]/High[3])	For Cinema		3	0	-
211	Menu Init. YNR (Off[0]/Low[1]/High[2])	For Dynamic		2	0	-
212	Menu Init. YNR (Off[0]/Low[1]/High[2])	For Natural		2	0	-
213	Menu Init. YNR (Off[0]/Low[1]/High[2])	For Cinema		2	0	-
214	Menu Init. LTI (Off[0]/Low[1]/Mid.[2]/High[3])	For Dynamic		3	2	-
215	Menu Init. LTI (Off[0]/Low[1]/Mid.[2]/High[3])	For Natural		3	1	-
216	Menu Init. LTI (Off[0]/Low[1]/Mid.[2]/High[3])	For Cinema		3	0	-
217	Vs,Va Feed-Back control ON (VFBON)			1	0	PDP
218	Tint Center (CM)	576i		254	128	FC
219	Tint Center (CM)	480i		254	128	FC
220	Offset value of gain for Black Stretch function	LOW mode		63	0	FC
221	Offset value of gain for Black Stretch function	MID mode		63	25	FC
222	Offset value of gain for Black Stretch function	HIGH mode		63	55	FC
223	Color Center (CM)	NTSC		127	70	FC
224	Color Center (CM)	NTSC-S		127	70	FC
225	Color Center (CM)	PAL		127	70	FC
226	Color Center (CM)	PAL-S		127	70	FC
227	Color Center (CM)	480i		127	70	FC
228	Color Center (CM)	576i		127	70	FC
229	Tint Center (CM)	NTSC		254	128	FC
230	Tint Center (CM)	NTSC-S		254	128	FC
231	Tint Center (CM)	PAL		254	128	FC
232	Tint Center (CM)	PAL-S		254	128	FC

Adj. No	Function			Max.	Init. Value	Device
	ADJ. Items	Mode				
233	Offset value of gain for Black Stretch function	LOW mode at HD signal		63	0	FC
234	Offset value of gain for Black Stretch function	MID mode at HD signal		63	45	FC
235	Offset value of gain for Black Stretch function	HIGH mode at HD signal		63	55	FC
236	Menu init. Contrast mode (Normal [0] Auot [1] / Dynamic. [2])	For Dynamic		2	2	FC
237	Menu init. Contrast mode (Normal [0] Auot [1] / Dynamic. [2])	For Natural		2	0	FC
238	Menu init. Contrast mode (Normal [0] Auot [1] / Dynamic. [2])	For Cinema		2	0	FC
239	Y/G Horizontal Enhancer Gain [YHEG2]	1080i-50/60/720p-60 (HDMI)		15	5	FC
240	[YHEG2']	720p-50 (HDMI *EX. HDMI→#160-161		15	5	FC
241	dummy241			-	-	-
242	dummy242			-	-	-
243	dummy243			-	-	-
244	dummy244			-	-	-
245	dummy245			-	-	-
246	dummy246			-	-	-
247	dummy247			-	-	-

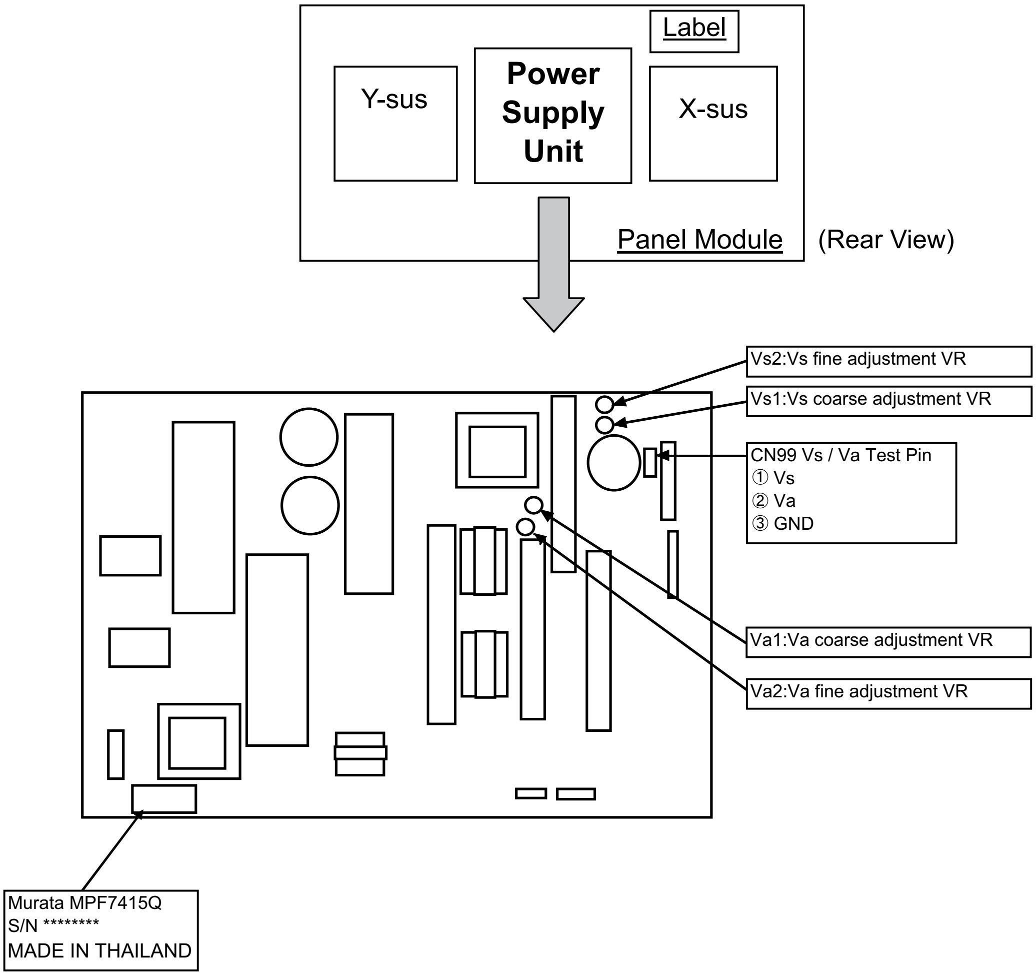
● Factory Reset

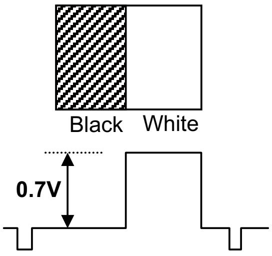
After all of the adjustments of main chassis are finished, perform FACTORY RESET.

Press the SUB-POWER(⏻) button, INPUT SELECT(⎆) button and ▲ button at the same time, and hold for more than 5 seconds.

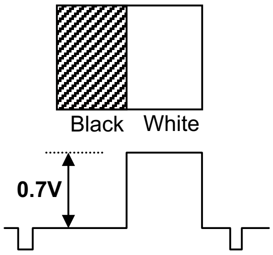
The unit is set to factory settings.

Item	Power Unit Vs, Va Adjustment		
	Preparation		Procedure
(1)	Turn on the set and perform pre-heat run more than 1 min on burn-in screen.	(1)	Turn Vs ADJ to adjust Vs voltage to be within ±0.1V of the value specified in the label on the panel. ① Adjust within ± 1V at Vs1 ② Adjust within ± 0.1V at Vs2
(2)	Receive full back pattern signal (or Video silence signal; but it will be automatically turned off after a few seconds by power save function.)	(2)	Turn Va ADJ to adjust Va voltage to be within ±0.2V of the value specified in the label on the panel. ① Adjust within ± 1V at Va1 ② Adjust within ± 0.2V at Va2
(3)	Connect voltmeter leads to Vs (or Va) and GND test points of the power unit.	(3)	Reconfirm that Vs voltage remains within ±0.1V of the specified value. Readjust if it’s outside of the margin. Label example <LOT>N6 Vs= 80.0V Va=60.0V Vw=140.0V Vx=60.0V


Label
Y-sus
Power Supply Unit
X-sus
Panel Module
(Rear View)
Vs2:Vs fine adjustment VR
Vs1:Vs coarse adjustment VR
CN99 Vs / Va Test Pin
① Vs
② Va
③ GND
Va1:Va coarse adjustment VR
Va2:Va fine adjustment VR
Murata MPF7415Q
S/N ********
MADE IN THAILAND

<table>
<tr><td>Item</td><td colspan="3">RGB Amplitude Adjustment (PC D-Sub input)</td></tr>
<tr><td colspan="2">Preparation</td><td colspan="2">Procedure</td></tr>
<tr><td>(1)</td><td>Input RGB amplitude adjustment signal of VGA (60Hz) into RGB2 [D-sub] terminal.
Black pattern: Set pedestal level. Characters must not be inserted into this signal.
 </td><td>(1)
(2)</td><td>Receive PC signal (VGA [60Hz]), and indicate Service Adjustment Menu.(Main)
Select No.897 of Service Adjustment Menu. Press [OK] key more than 2 seconds to start the automatic adjustment. The adjustment completes when the OSD reappears.</td></tr>
</table>

[Note] Never adjust without use of the specified signal.
If that were done by mistake, the picture would become abnormal in black level, contrast and color.
In this case, it will be recovered by re-adjustment in the specified way.

<table>
<tr><td>Item</td><td colspan="3">RGB Amplitude Adjustment (Main)</td></tr>
<tr><td colspan="2">Preparation</td><td colspan="2">Procedure</td></tr>
<tr><td>(1)</td><td>Input 576p or 480p adjustment signal into AV1 terminal.
Black pattern: Set pedestal level. Characters must not be inserted into this signal.
 </td><td>(1)
(2)</td><td>Receive 576p or 480p adjustment signal on AV1 terminal input. Indicate Service Adjustment Menu.
Select No.897 (RGB amplitude gain adjustment Main) of Service Adjustment Menu. Press [OK] key more than 2 seconds to start the automatic adjustment. The adjustment completes when the indication [Auto Mode] at the bottom of the screen disappears.</td></tr>
</table>

[Note] Never adjust without use of the specified signal.
If that were done by mistake, the picture would become abnormal in black level, contrast and color.
In this case, it will be recovered by re-adjustment in the specified way.

Item	Video Colour Temperature Adjustment (Cool)		
Adjustment Preparations		Adjustment Procedures	
(1)	Set the signal generator output as All White.	(1)	Perform the following adjustment with the remote control
(2)	Component signal (480i) Video level : 0.700Vp-p Sync level : 0.300Vp-p Setup level : 0V	(2)	Set the CRT colour analyzer (CA100) at the centre of the panel.
(3)	Picture Menu is set as [RESET].	(3)	Ensure that the service adjustment menu (sub menu) No. 0, 1, 2, are all set as 255.
(4)	Confirm that the mode is set as Factory Adjustment mode.	(4)	After receiving the video signal, step down the two (or one) among adjustment No. 0, 1, 2 and adjust the values as shown below. Note) At least one of the data shoud be 255. Specification Video colour temperature (Cool) x=0.270±0.005 y=0.275±0.005

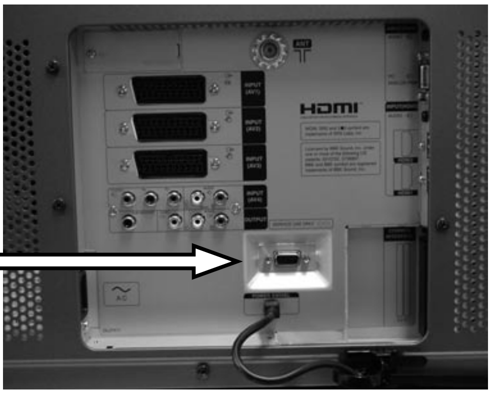
Item	Video Colour Temperature Adjustment (Normal)		
Preparation		Procedure	
(1)	Set signal generator output as All White (Window ratio: 100%).	(1)	Perform the following adjustment with the remote control.
(2)	Component signal (480i) Video level : 0.700Vp-p Sync level : 0.300Vp-p Setup level : 0V	(2)	Set the CRT Colour Analyzer (CA-100) at the centre of the panel.
(3)	Check that Picture Menu is set as [RESET] mode.	(3)	Ensure that service adjustment menu (sub) No. 3, 4, 5 are all set as 255.
(4)	Set into Factory Adjustment mode.	(4)	After receiving the video signal, step down the two (or one) among adjustment No. 3, 4, 5 and adjust the values as shown below. (Note) At least one of the data should be 255. <Specification> Video color Colour temperature (Normal) x=0.285±0.005 y=0.293±0.005

Item	Video Colour Temperature Adjustment (Warm)		
Preparation		Procedure	
(1)	Set signal generator output as All White (Window ratio: 100%).	(1)	Perform the following adjustment with the remote control.
(2)	Component signal (480i) Video level : 0.700Vp-p Sync level : 0.300Vp-p Setup level : 0V	(2)	Set the CRT Colour Analyzer (CA100) at the centre of the panel.
(3)	Check that Picture Menu is set as [RESET] mode.	(3)	Ensure that service adjustment menu (submenu) No. 6, 7, 8 are all set as 255.
(4)	Set into Factory Adjustment mode.	(4)	After receiving the video signal, step down the two (or one) among adjustment No. 6, 7, 8 and adjust the values as shown below. (Note) At least one of the data should be 255. <Specification> Video Colour temperature (Warm) x=0.314±0.01 y=0.327±0.01

Item	Video Colour Temperature Adjustment (B&W)		
Preparation		Procedure	
(1)	Set signal generator output as All White (Window ratio: 100%).	(1)	Perform the following adjustment with the remote control.
(2)	Component signal (480i) Video level : 0.700Vp-p Sync level : 0.300Vp-p Setup level : 0V	(2)	Set the CRT Colour Analyzer (CA-100) at the centre of the panel.
(3)	Check that Picture Menu is set as [RESET] mode.	(3)	Ensure that service adjustment menu (sub menu) No. 9, 10, 11 are all set as 255.
(4)	Set into Factory Adjustment mode.	(4)	After receiving the video signal, step down the two (or one) among adjustment No. 9, 10, 11 and adjust the values as shown below. (Note) At least one of the data should be 255. <Specification> Video Colour temperature (B&W) x=0.335±0.01 y=0.343±0.01

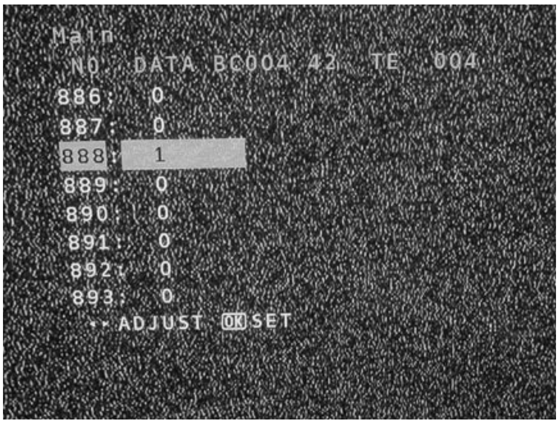
● Procedure of re-install new software of Digital module software for 42PD9700

1. RS232C cable should be connected to RS232C terminal of TV set.



RS232C cable should be connected.

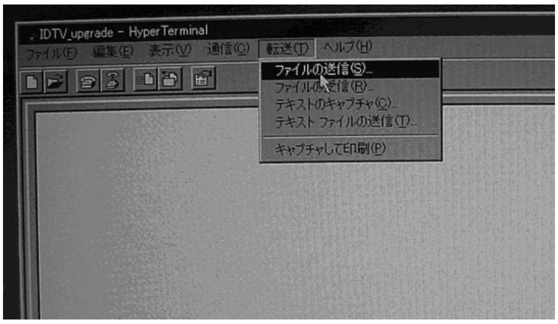
2. TV set turn ON.
3. Press hold [S.MODE], [YELLOW] and [Blue] button of remote controller until appears the service menu.
4. Set data of No 888 from [0] to [1] then press [OK] button.



```
Main
 NO  DATA BC004 42  TE  004
886:  0
887:  0
888:  1
889:  0
890:  0
891:  0
892:  0
893:  0
 ◂▸ADJUST OK SET
```

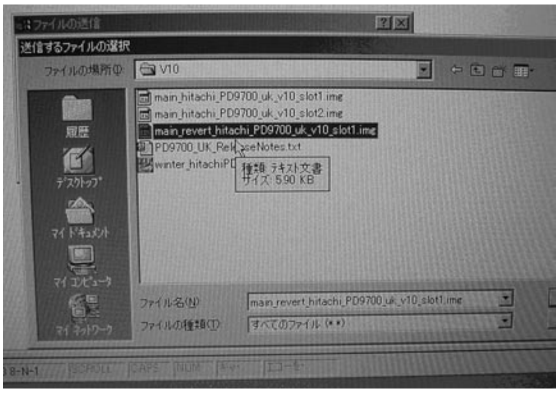
5. RS232C cable should be connected between TV set and PC.
6. Appeared programe menu after double crick Hyper Terminal I con.

   Condition of Transfer
   Bit rate:115200
   Data bit:8
   Parity: none
   Stop bit:1
   Flow: none


IDTV_upgrade - HyperTerminal
ファイル(F)
編集(E)
表示(V)
通信(C)
転送(T)
ヘルプ(H)
ファイルの送信(S)...
ファイルの受信(R)...
テキストのキャプチャ(C)...
テキスト ファイルの送信(T)...
キャプチャして印刷(P)

7. Crick “Transfer” then select ”File send”.

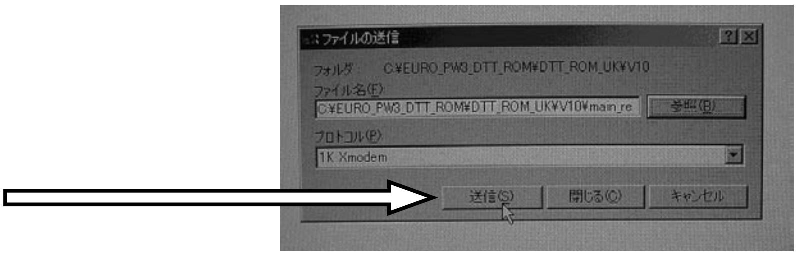
8. Select required software file in the folder.


ファイルの送信
送信するファイルの選択
ファイルの場所(I): V10
main_hitachi_PD9700_uk_v10_slot1.img
main_hitachi_PD9700_uk_v10_slot2.img
main_revert_hitachi_PD9700_uk_v10_slot1.img
PD9700_UK_ReleaseNotes.txt
winter_hitachiPD
種類: テキスト文書
サイズ: 5.90 KB
履歴
デスクトップ
マイ ドキュメント
マイ コンピュータ
マイ ネットワーク
8-N-1
SCROLL
CAPS
NUM

ファイル名(N): main_revert_hitachi_PD9700_uk_v10_slot1.img
ファイルの種類(T): すべてのファイル (*.*)

9. Turn Off the TV set.

10. Click “Send” in the “ File send” menu.


ファイルの送信

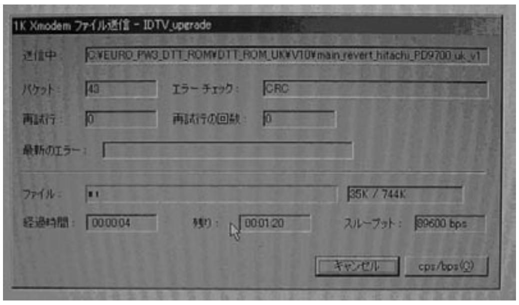
フォルダ: C¥EURO_PW3_DTT_ROM¥DTT_ROM_UK¥V10

ファイル名(F): C¥EURO_PW3_DTT_ROM¥DTT_ROM_UK¥V10¥main_re

プロトコル(P): 1K Xmodem

11. Turn On the TV set.

12. Screen will change and digit of Packet window will start from “0”.


1K Xmodem ファイル送信 - IDTV_uperade

送信中: C¥EURO_PW3_DTT_ROM¥DTT_ROM_UK¥V10¥main_revert_hitachi_PD9700_uk_v1

パケット: 43

エラー チェック: CRC

再試行: 0

再試行の回数: 0

最新のエラー:

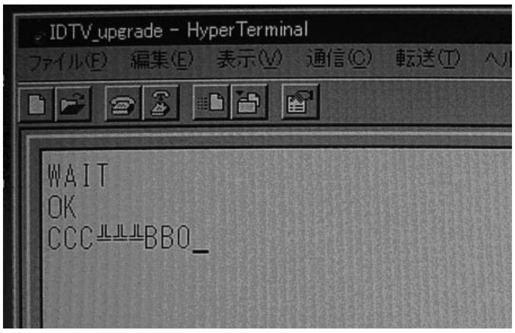
ファイル: 35K / 744K

経過時間: 00:00:04

残り: 00:01:20

スループット: 89600 bps

13. Should be wait until screen has “OK” information.


IDTV_uperade - HyperTerminal

```
WAIT
OK
CCC╨╨╨BB0_
```

14. Disconnect RS232C cable.

15. Press hold [S.MODE], [YELLOW] and [Blue] button of remote controller until appears the service menu

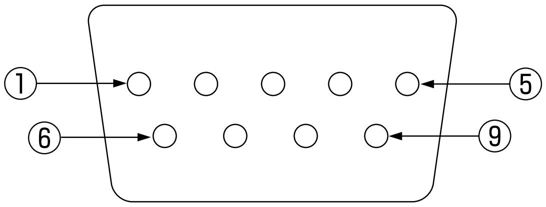
16. data of no.888 should be change back from [1] to [0] then press [OK] button.

17. Turn Off the TV set.

After confirmation of a soft version is necessary.

SERIAL(RS-232C) Connector pin specification.

pin	signal name	note
1	NC	
2	RXD0	Data from PC
3	TXD0	Data to PC
4	NC	
5	GND	Set GND ↔ PC GND
6	NC	
7	NC	
8	NC	
9	NC	



FRONT VIEW(Female)

7. Troubleshooting

● How to get to Burn-in mode

This mode displays the test patterns of some single color raster in turn. These signals are from built-in generator of panel. So it can be presumed that maybe the panel has some trouble when the screen of Burn-in mode is abnormal.

Using the R-side control buttons with the set turned off (standby) can activate this mode.

Press the SUB-POWER(⏻|) button, INPUT SELECT(⇥) button and VOLUME DOWN(◢) button at the same time, and hold for more than 5 seconds.

The set turns on with single color raster and the OSD of [BURN IN: ON].

To escape from this mode, press the SUB-POWER(⏻|) button, INPUT SELECT(⇥) button and ▲ button at the same time, and hold for more than 5 seconds. Burn-in mode will be released.

● How to recover the remote and R-side control key function

If remote and R-side control key cannot operate after miss set special function by front keys, these functions can recover by below method.

Press the SUB-POWER(⏻|) button, INPUT SELECT(⇥) button and ▼ button at the same time, and hold for more than 5 seconds.

The set turns on the service menu mode.

Select No.721 and No.722 then each data set from [0] to [1].

Or

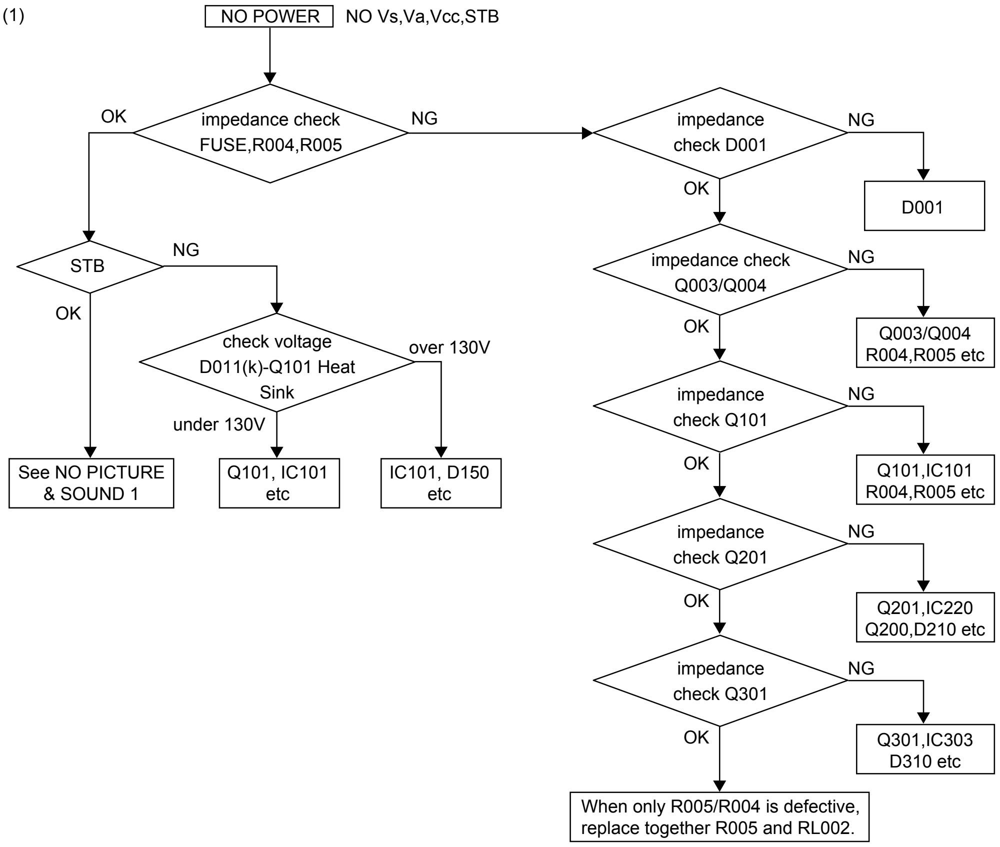
Press the SUB-POWER(⏻|) button and ▼ button at the same time, and hold for more than 5 seconds

● How to check method of the use accumulation time for panel.

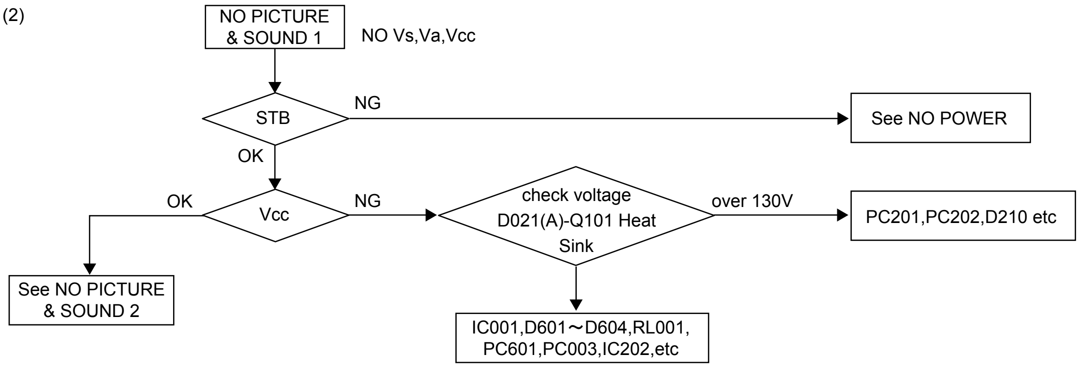
Select No.894 of Service Adjustment Menu.

Power unit

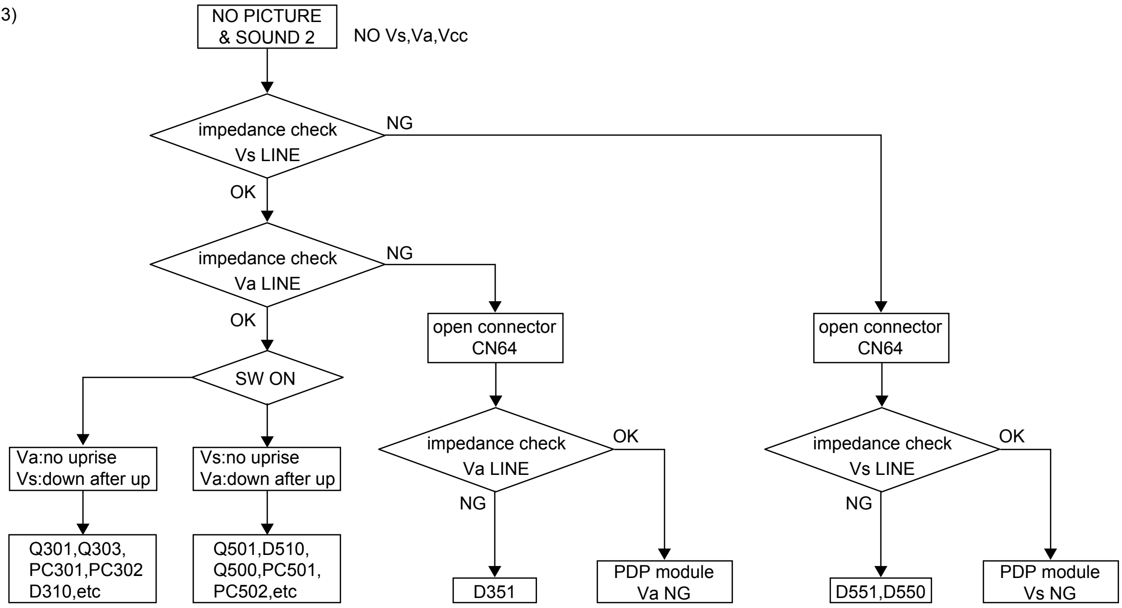
(1)


NO POWER
NO Vs,Va,Vcc,STB
impedance check FUSE,R004,R005
OK
NG
impedance check D001
NG
D001
OK
STB
NG
OK
check voltage D011(k)-Q101 Heat Sink
over 130V
under 130V
See NO PICTURE & SOUND 1
Q101, IC101 etc
IC101, D150 etc
impedance check Q003/Q004
NG
Q003/Q004 R004,R005 etc
OK
impedance check Q101
NG
Q101,IC101 R004,R005 etc
OK
impedance check Q201
NG
Q201,IC220 Q200,D210 etc
OK
impedance check Q301
NG
Q301,IC303 D310 etc
OK
When only R005/R004 is defective, replace together R005 and RL002.

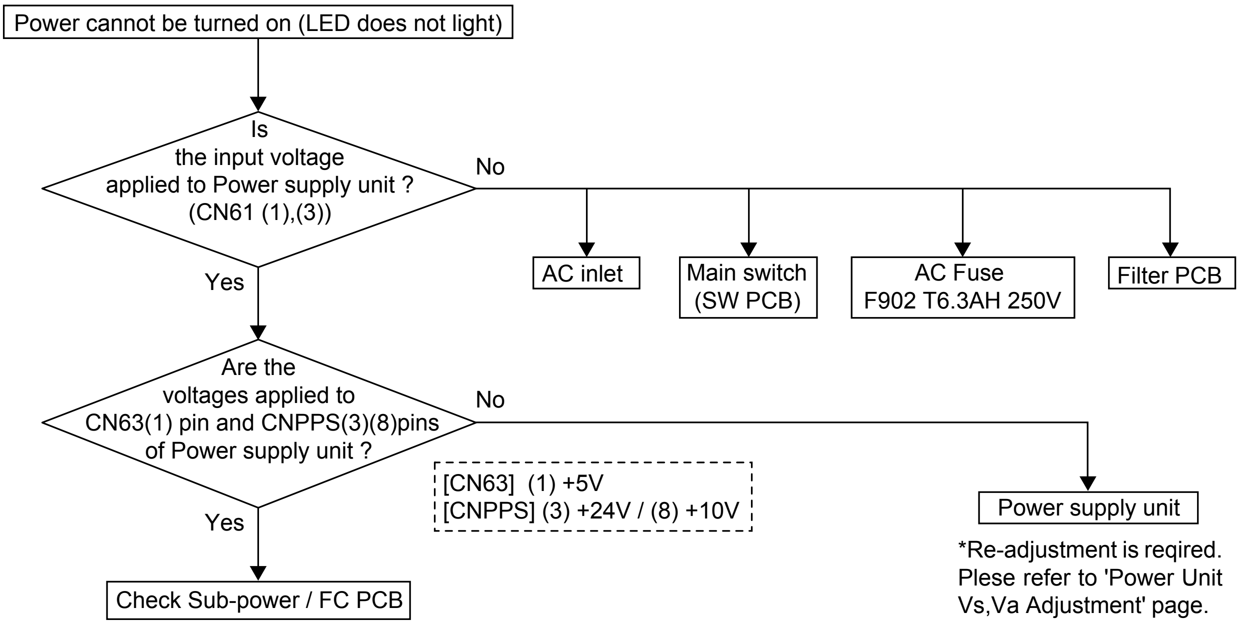
(2)


NO PICTURE & SOUND 1
NO Vs,Va,Vcc
STB
NG
See NO POWER
OK
Vcc
OK
NG
check voltage D021(A)-Q101 Heat Sink
over 130V
PC201,PC202,D210 etc
See NO PICTURE & SOUND 2
IC001,D601～D604,RL001, PC601,PC003,IC202,etc

(3)


NO PICTURE & SOUND 2
NO Vs,Va,Vcc
impedance check Vs LINE
NG
OK
impedance check Va LINE
NG
OK
open connector CN64
open connector CN64
SW ON
Va:no uprise Vs:down after up
Vs:no uprise Va:down after up
Q301,Q303, PC301,PC302 D310,etc
Q501,D510, Q500,PC501, PC502,etc
impedance check Va LINE
OK
NG
D351
PDP module Va NG
impedance check Vs LINE
OK
NG
D551,D550
PDP module Vs NG

Power


Power cannot be turned on (LED does not light)
Is the input voltage applied to Power supply unit ? (CN61 (1),(3))
No
AC inlet
Main switch (SW PCB)
AC Fuse F902 T6.3AH 250V
Filter PCB
Yes
Are the voltages applied to CN63(1) pin and CNPPS(3)(8)pins of Power supply unit ?
No
[CN63] (1) +5V
[CNPPS] (3) +24V / (8) +10V
Power supply unit
*Re-adjustment is reqired. Plese refer to 'Power Unit Vs,Va Adjustment' page.
Yes
Check Sub-power / FC PCB

Power

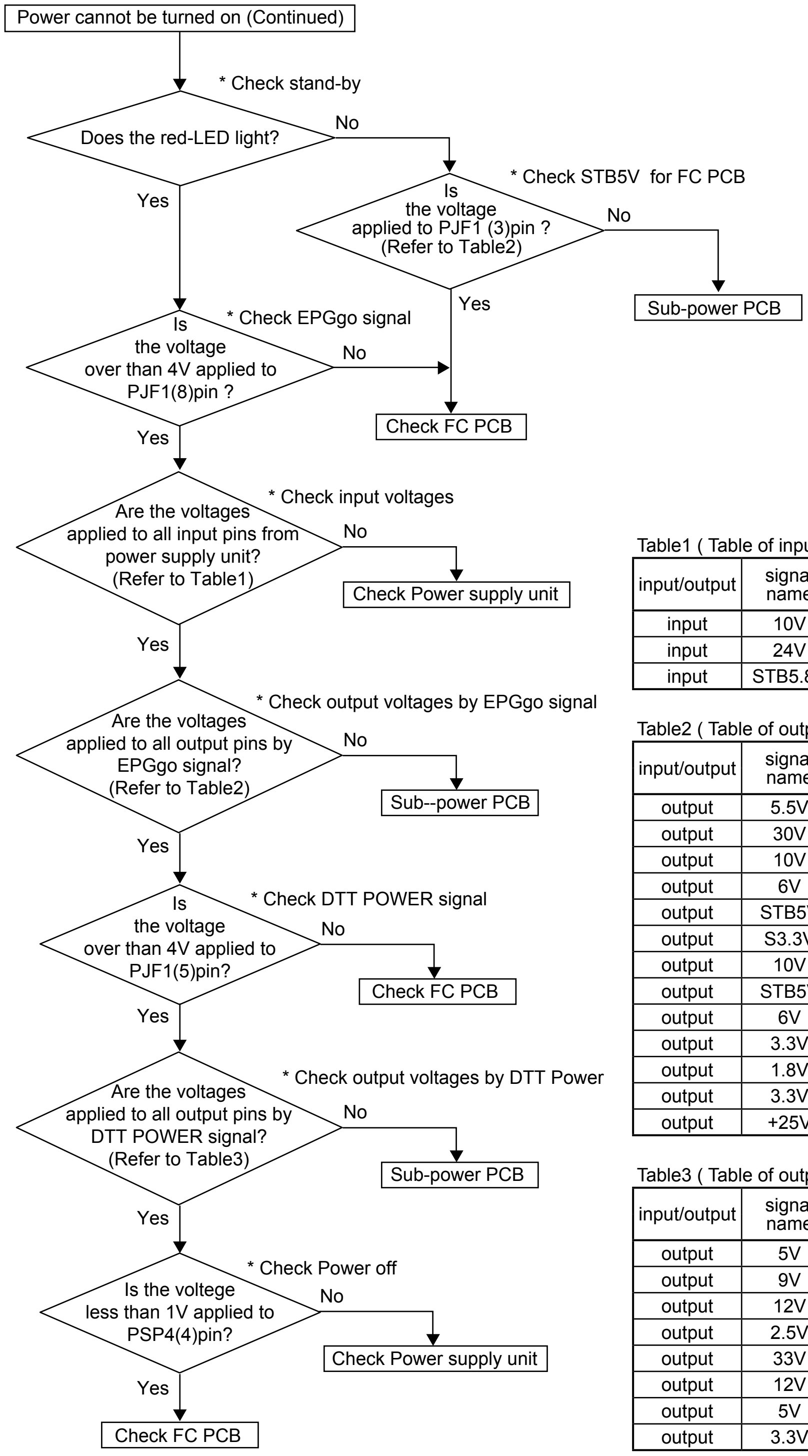

Power cannot be turned on (Continued)
* Check stand-by
Does the red-LED light?
No
Yes
* Check STB5V for FC PCB
Is the voltage applied to PJF1 (3)pin ? (Refer to Table2)
No
Sub-power PCB
Yes
* Check EPGgo signal
Is the voltage over than 4V applied to PJF1(8)pin ?
No
Check FC PCB
Yes
* Check input voltages
Are the voltages applied to all input pins from power supply unit? (Refer to Table1)
No
Check Power supply unit
Yes
* Check output voltages by EPGgo signal
Are the voltages applied to all output pins by EPGgo signal? (Refer to Table2)
No
Sub--power PCB
Yes
* Check DTT POWER signal
Is the voltage over than 4V applied to PJF1(5)pin?
No
Check FC PCB
Yes
* Check output voltages by DTT Power
Are the voltages applied to all output pins by DTT POWER signal? (Refer to Table3)
No
Sub-power PCB
Yes
* Check Power off
Is the voltege less than 1V applied to PSP4(4)pin?
No
Check Power supply unit
Yes
Check FC PCB

Table1 (Table of input from Power supply unit)

input/output	signal name	42PD9700U/C		
		pin No	value(V)	From/To
input	10V	PSP1 (7)and(8)	+9.9~11.6	Power supply unit
input	24V	PSP1 (3)and(4)	+23.75~26.25	Power supply unit
input	STB5.8V	PSP4 (1)and(2)	+5.5~6.1	Power supply unit

Table2 (Table of output by EPGgo signal)

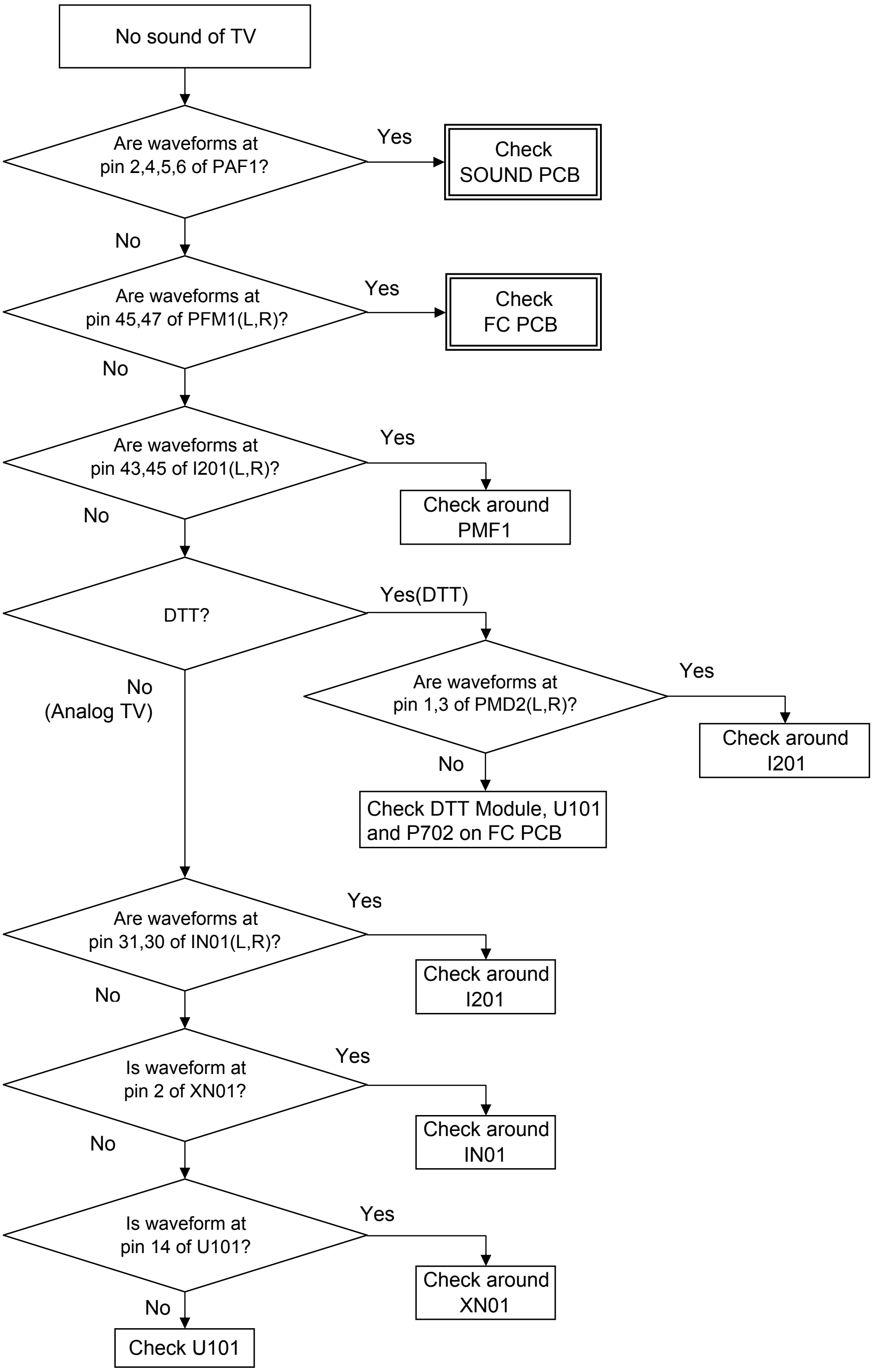
input/output	signal name	42PD9700U/C		
		pin No	value(V)	From/To
output	5.5V	PJB1 (1)and(2)	+5.4~5.9	Bridge madia unit
output	30V	PJM1 (1)	+31.3~33.6	Main PCB
output	10V	PJM1 (3)	+9.9~11.1	Main PCB
output	6V	PJM1 (5)	+5.4~5.9	Main PCB
output	STB5V	PJM1 (7)	+4.8~6.1	Main PCB
output	S3.3V	PJM1 (9)	+3.13~3.47	Main PCB
output	10V	PJF1 (1)	+9.9~11.1	FC PCB
output	STB5V	PJF1 (3)	+4.8~6.1	FC PCB
output	6V	PJF2 (1)and(2)	+5.4~5.9	FC PBB
output	3.3V	PJF2 (5)and(6)	+3.13~3.47	FC PCB
output	1.8V	PJF2 (9)to(11)	+1.71~1.89	FC PCB
output	3.3V	PJA1 (1)	+3.13~3.47	Audio PCB
output	+25V	PJA1 (7)to(9)	+23.75~26.25	Audio PCB

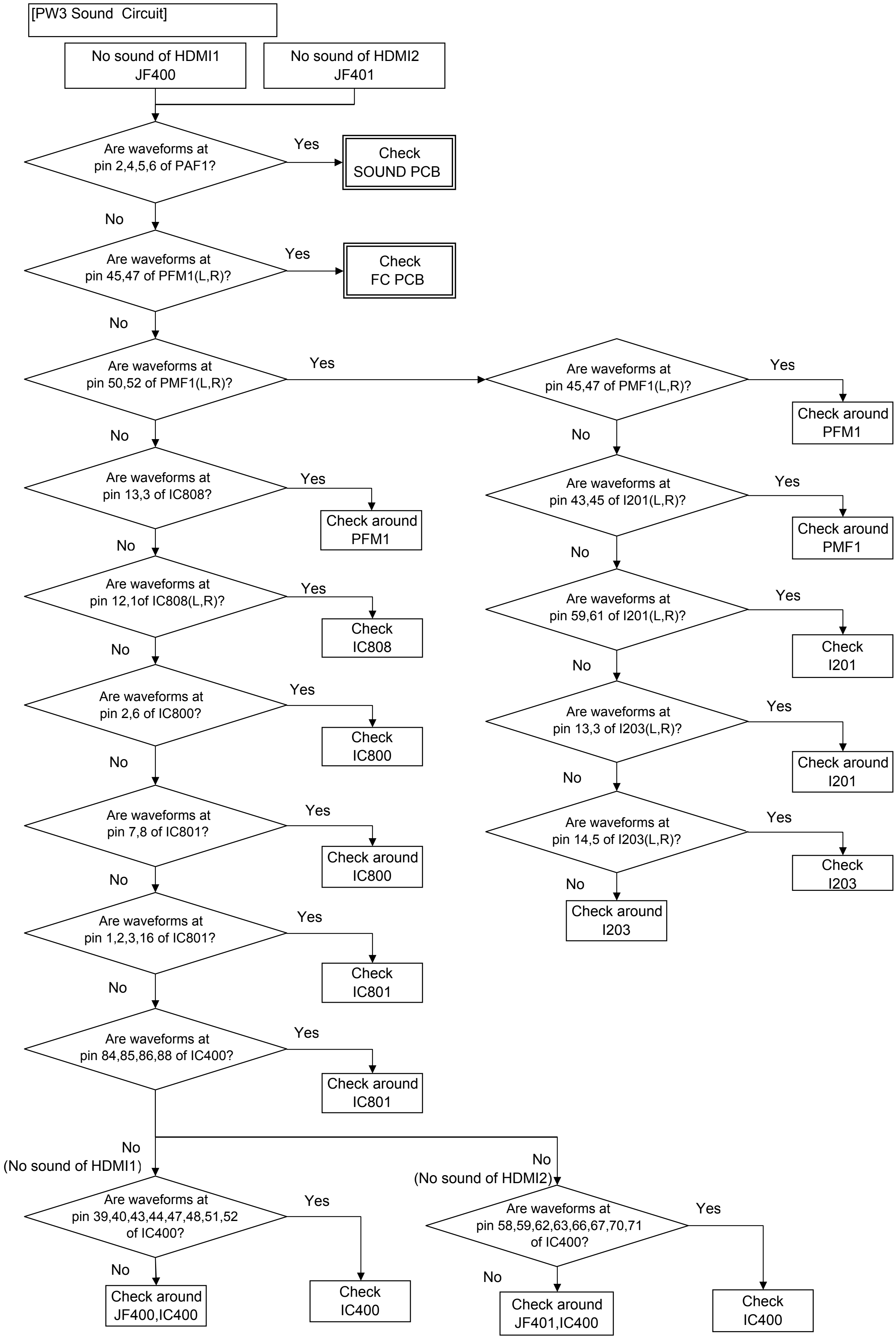
Table3 (Table of output by DTT POWER signal)

input/output	signal name	42PD9700U/C		
		pin No	value(V)	From/To
output	5V	PJM2 (2)	+4.75~5.25	Main PCB
output	9V	PJM2 (4)	+8.55~9.45	Main PCB
output	12V	PJM2 (6)	+11.75~12.25	Main PCB
output	2.5V	PJD1 (1)	+2.35~2.65	DTT PCB
output	33V	PJD1 (2)	+30~33	DTT PCB
output	12V	PJD1 (3)	+11.75~12.25	DTT PCB
output	5V	PJD1 (6)	+4.75~5.25	DTT PCB
output	3.3V	PJD1 (7)	+3.15~3.45	DTT PCB

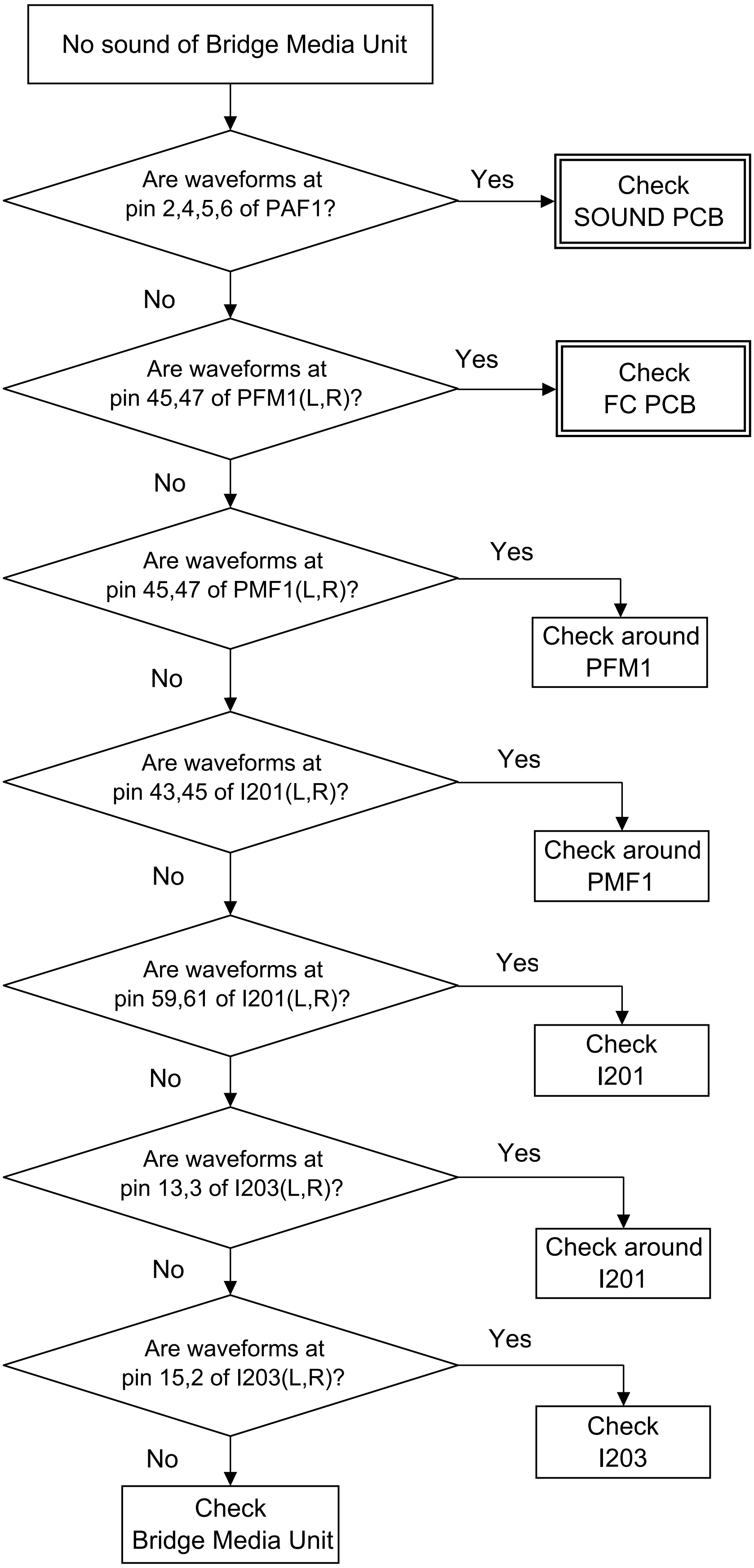
Note 1) GND(0V) is R508P or R509P of chip Jumper or the frame near Sub-power PCB.

[PW3 Sound Circuit]

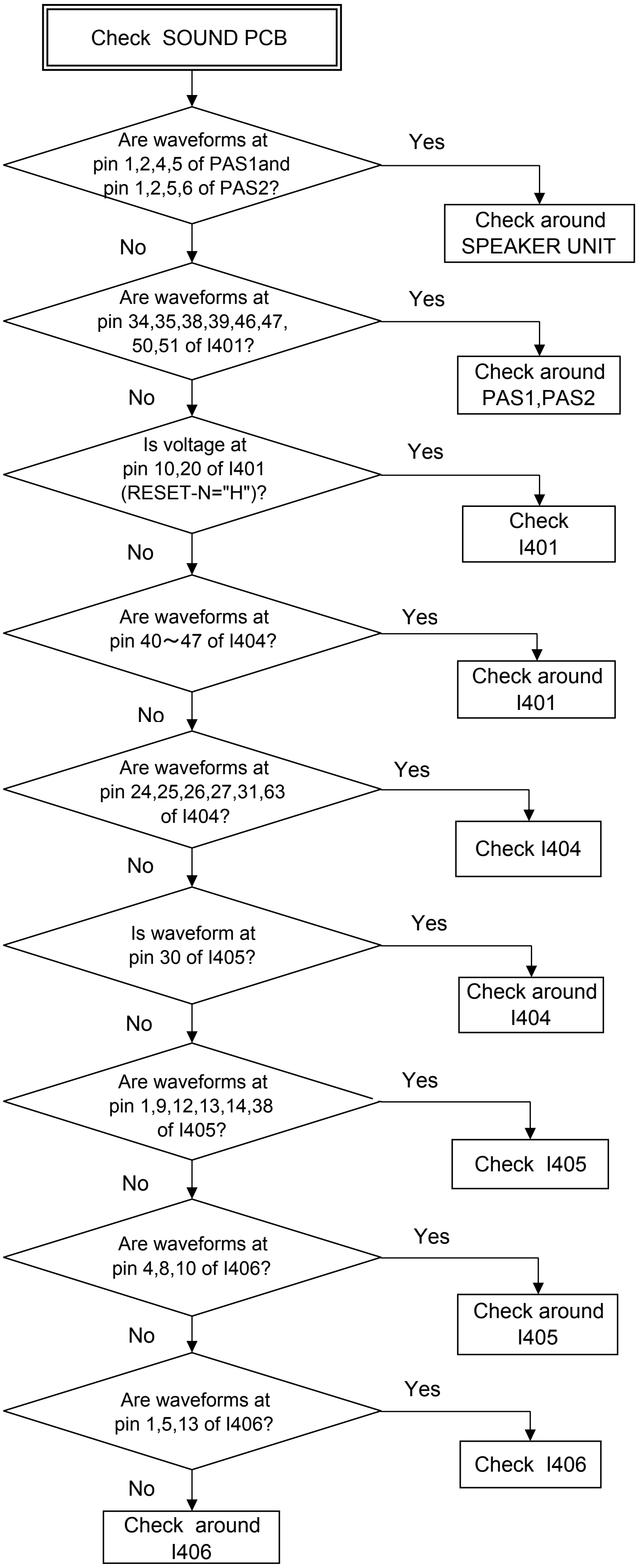

No sound of TV
Are waveforms at pin 2,4,5,6 of PAF1?
Yes
Check SOUND PCB
No
Are waveforms at pin 45,47 of PFM1(L,R)?
Yes
Check FC PCB
No
Are waveforms at pin 43,45 of I201(L,R)?
Yes
Check around PMF1
No
DTT?
Yes(DTT)
Are waveforms at pin 1,3 of PMD2(L,R)?
Yes
Check around I201
No
Check DTT Module, U101 and P702 on FC PCB
No (Analog TV)
Are waveforms at pin 31,30 of IN01(L,R)?
Yes
Check around I201
No
Is waveform at pin 2 of XN01?
Yes
Check around IN01
No
Is waveform at pin 14 of U101?
Yes
Check around XN01
No
Check U101


[PW3 Sound Circuit]
No sound of HDMI1 JF400
No sound of HDMI2 JF401
Are waveforms at pin 2,4,5,6 of PAF1?
Yes
Check SOUND PCB
No
Are waveforms at pin 45,47 of PFM1(L,R)?
Yes
Check FC PCB
No
Are waveforms at pin 50,52 of PMF1(L,R)?
Yes
Are waveforms at pin 45,47 of PMF1(L,R)?
Yes
Check around PFM1
No
Are waveforms at pin 43,45 of I201(L,R)?
Yes
Check around PMF1
No
Are waveforms at pin 59,61 of I201(L,R)?
Yes
Check I201
No
Are waveforms at pin 13,3 of I203(L,R)?
Yes
Check around I201
No
Are waveforms at pin 14,5 of I203(L,R)?
Yes
Check I203
No
Check around I203
No
Are waveforms at pin 13,3 of IC808?
Yes
Check around PFM1
No
Are waveforms at pin 12,1of IC808(L,R)?
Yes
Check IC808
No
Are waveforms at pin 2,6 of IC800?
Yes
Check IC800
No
Are waveforms at pin 7,8 of IC801?
Yes
Check around IC800
No
Are waveforms at pin 1,2,3,16 of IC801?
Yes
Check IC801
No
Are waveforms at pin 84,85,86,88 of IC400?
Yes
Check around IC801
No (No sound of HDMI1)
Are waveforms at pin 39,40,43,44,47,48,51,52 of IC400?
Yes
Check IC400
No
Check around JF400,IC400
No (No sound of HDMI2)
Are waveforms at pin 58,59,62,63,66,67,70,71 of IC400?
Yes
Check IC400
No
Check around JF401,IC400

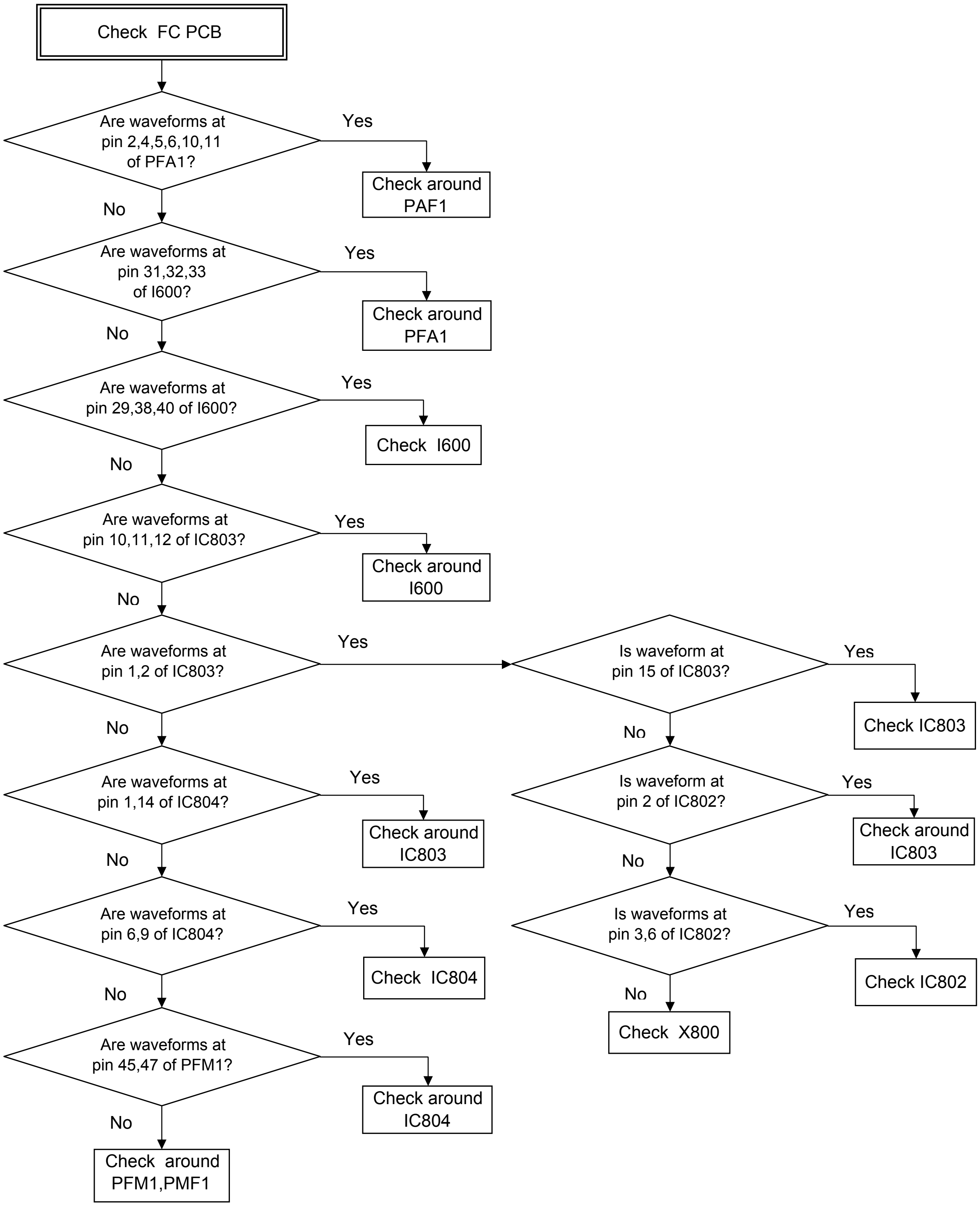
[PW3 Sound Circuit]


No sound of Bridge Media Unit
Are waveforms at pin 2,4,5,6 of PAF1?
Yes
Check SOUND PCB
No
Are waveforms at pin 45,47 of PFM1(L,R)?
Yes
Check FC PCB
No
Are waveforms at pin 45,47 of PMF1(L,R)?
Yes
Check around PFM1
No
Are waveforms at pin 43,45 of I201(L,R)?
Yes
Check around PMF1
No
Are waveforms at pin 59,61 of I201(L,R)?
Yes
Check I201
No
Are waveforms at pin 13,3 of I203(L,R)?
Yes
Check around I201
No
Are waveforms at pin 15,2 of I203(L,R)?
Yes
Check I203
No
Check Bridge Media Unit

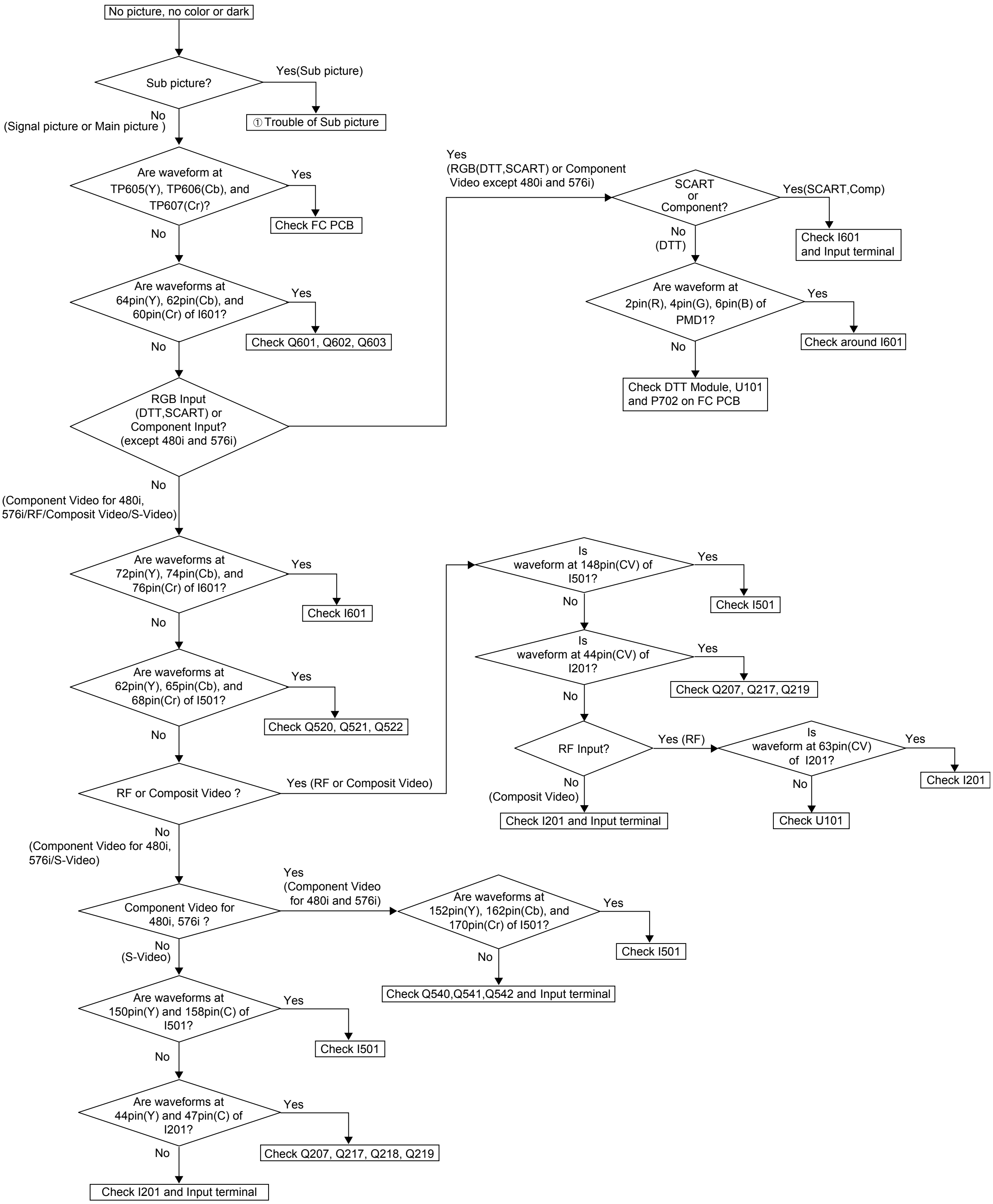
[PW3 Sound Circuit]


Check SOUND PCB
Are waveforms at pin 1,2,4,5 of PAS1and pin 1,2,5,6 of PAS2?
Yes
Check around SPEAKER UNIT
No
Are waveforms at pin 34,35,38,39,46,47, 50,51 of I401?
Yes
Check around PAS1,PAS2
No
Is voltage at pin 10,20 of I401 (RESET-N="H")?
Yes
Check I401
No
Are waveforms at pin 40～47 of I404?
Yes
Check around I401
No
Are waveforms at pin 24,25,26,27,31,63 of I404?
Yes
Check I404
No
Is waveform at pin 30 of I405?
Yes
Check around I404
No
Are waveforms at pin 1,9,12,13,14,38 of I405?
Yes
Check I405
No
Are waveforms at pin 4,8,10 of I406?
Yes
Check around I405
No
Are waveforms at pin 1,5,13 of I406?
Yes
Check I406
No
Check around I406

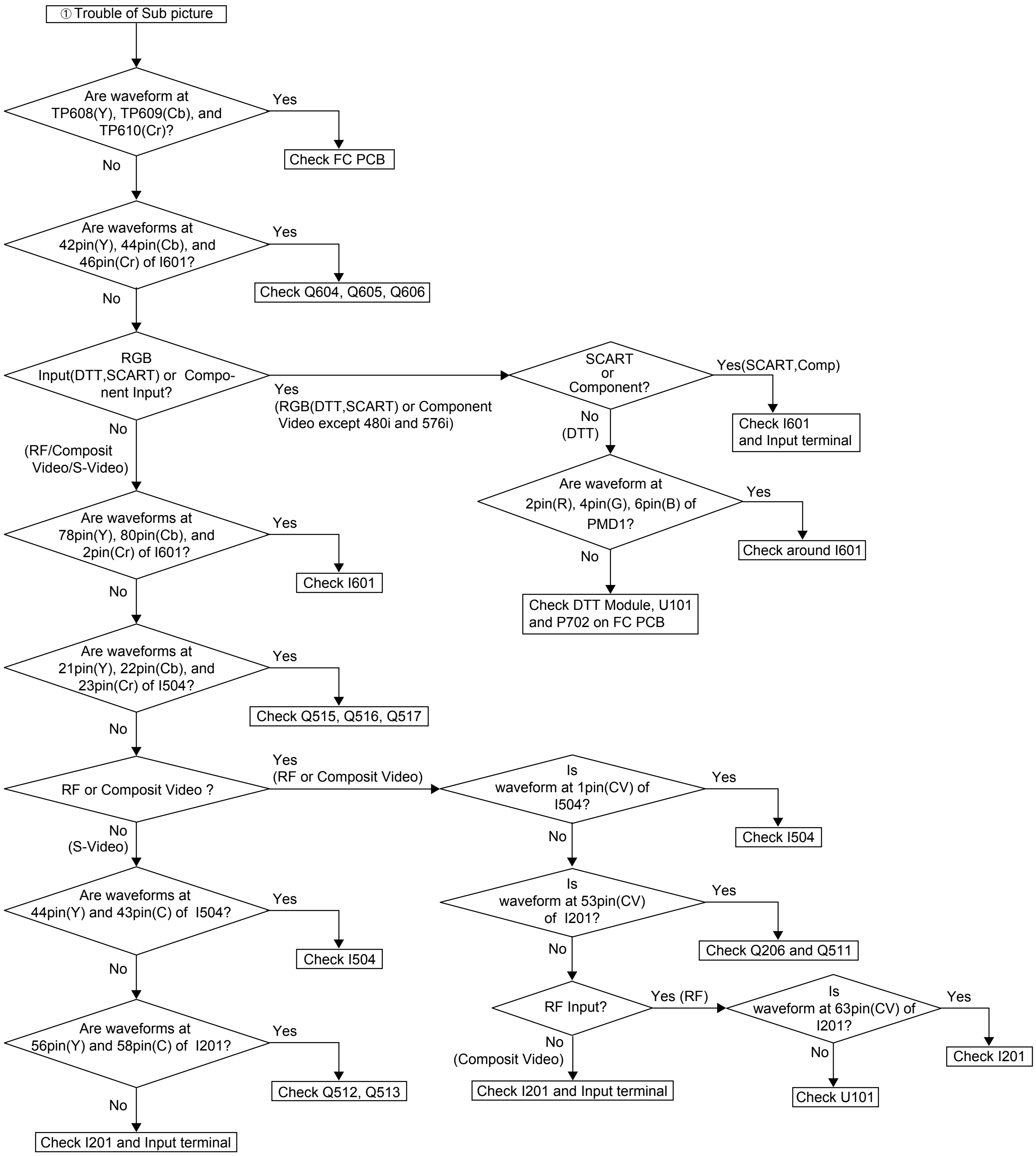
[PW3 Sound Circuit]


Check FC PCB
Are waveforms at pin 2,4,5,6,10,11 of PFA1?
Yes
Check around PAF1
No
Are waveforms at pin 31,32,33 of I600?
Yes
Check around PFA1
No
Are waveforms at pin 29,38,40 of I600?
Yes
Check I600
No
Are waveforms at pin 10,11,12 of IC803?
Yes
Check around I600
No
Are waveforms at pin 1,2 of IC803?
Yes
Is waveform at pin 15 of IC803?
Yes
Check IC803
No
Is waveform at pin 2 of IC802?
Yes
Check around IC803
No
Is waveforms at pin 3,6 of IC802?
Yes
Check IC802
No
Check X800
No
Are waveforms at pin 1,14 of IC804?
Yes
Check around IC803
No
Are waveforms at pin 6,9 of IC804?
Yes
Check IC804
No
Are waveforms at pin 45,47 of PFM1?
Yes
Check around IC804
No
Check around PFM1,PMF1

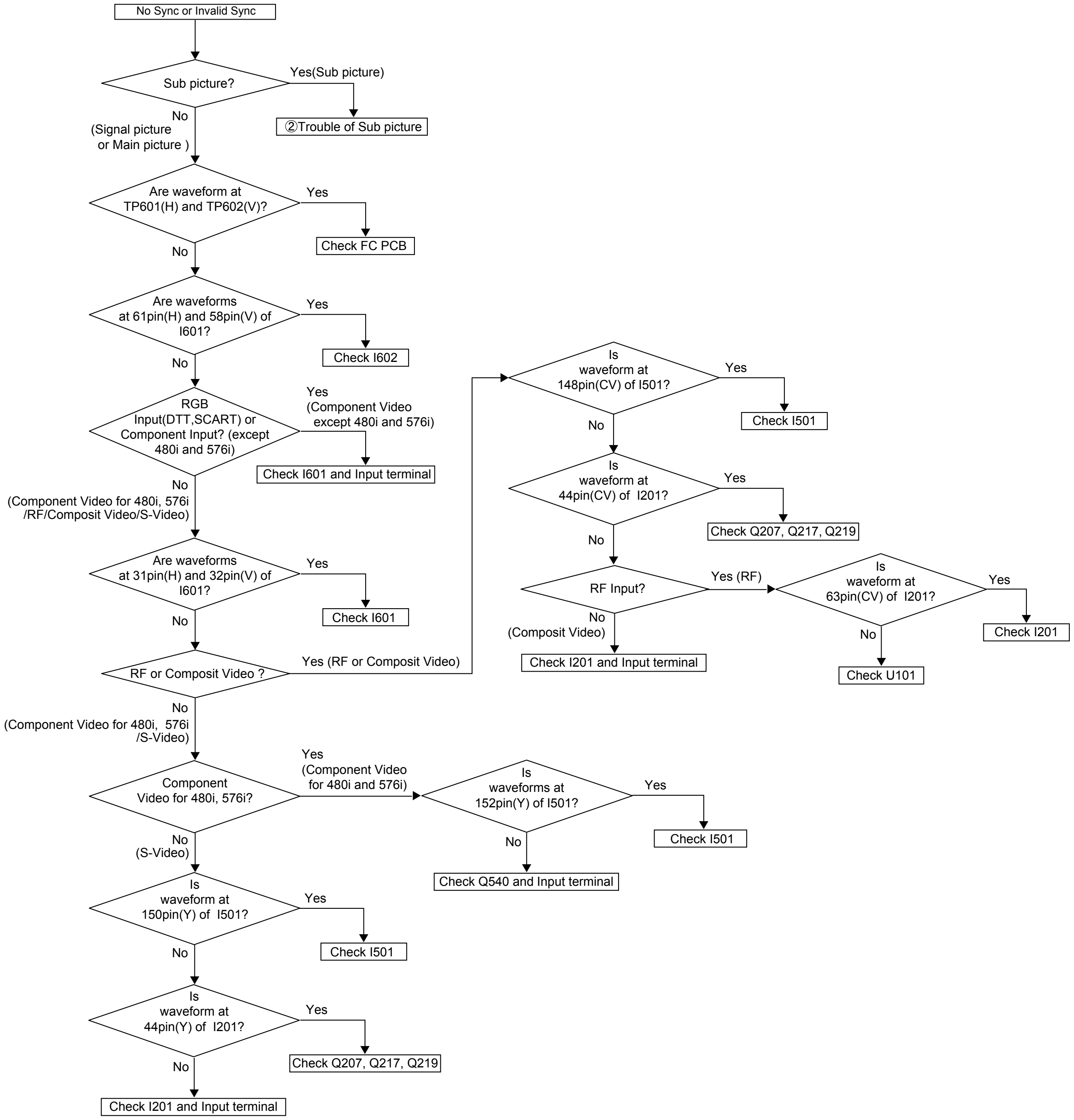
Main Picture [Main PCB Circuit]


No picture, no color or dark
Sub picture?
Yes(Sub picture)
① Trouble of Sub picture
No
(Signal picture or Main picture)
Are waveform at TP605(Y), TP606(Cb), and TP607(Cr)?
Yes
Check FC PCB
No
Are waveforms at 64pin(Y), 62pin(Cb), and 60pin(Cr) of I601?
Yes
Check Q601, Q602, Q603
No
RGB Input (DTT,SCART) or Component Input? (except 480i and 576i)
Yes
(RGB(DTT,SCART) or Component Video except 480i and 576i)
SCART or Component?
Yes(SCART,Comp)
Check I601 and Input terminal
No
(DTT)
Are waveform at 2pin(R), 4pin(G), 6pin(B) of PMD1?
Yes
Check around I601
No
Check DTT Module, U101 and P702 on FC PCB
No
(Component Video for 480i, 576i/RF/Composit Video/S-Video)
Are waveforms at 72pin(Y), 74pin(Cb), and 76pin(Cr) of I601?
Yes
Check I601
No
Are waveforms at 62pin(Y), 65pin(Cb), and 68pin(Cr) of I501?
Yes
Check Q520, Q521, Q522
No
RF or Composit Video ?
Yes (RF or Composit Video)
Is waveform at 148pin(CV) of I501?
Yes
Check I501
No
Is waveform at 44pin(CV) of I201?
Yes
Check Q207, Q217, Q219
No
RF Input?
Yes (RF)
Is waveform at 63pin(CV) of I201?
Yes
Check I201
No
Check U101
No
(Composit Video)
Check I201 and Input terminal
No
(Component Video for 480i, 576i/S-Video)
Component Video for 480i, 576i ?
Yes
(Component Video for 480i and 576i)
Are waveforms at 152pin(Y), 162pin(Cb), and 170pin(Cr) of I501?
Yes
Check I501
No
Check Q540,Q541,Q542 and Input terminal
No
(S-Video)
Are waveforms at 150pin(Y) and 158pin(C) of I501?
Yes
Check I501
No
Are waveforms at 44pin(Y) and 47pin(C) of I201?
Yes
Check Q207, Q217, Q218, Q219
No
Check I201 and Input terminal

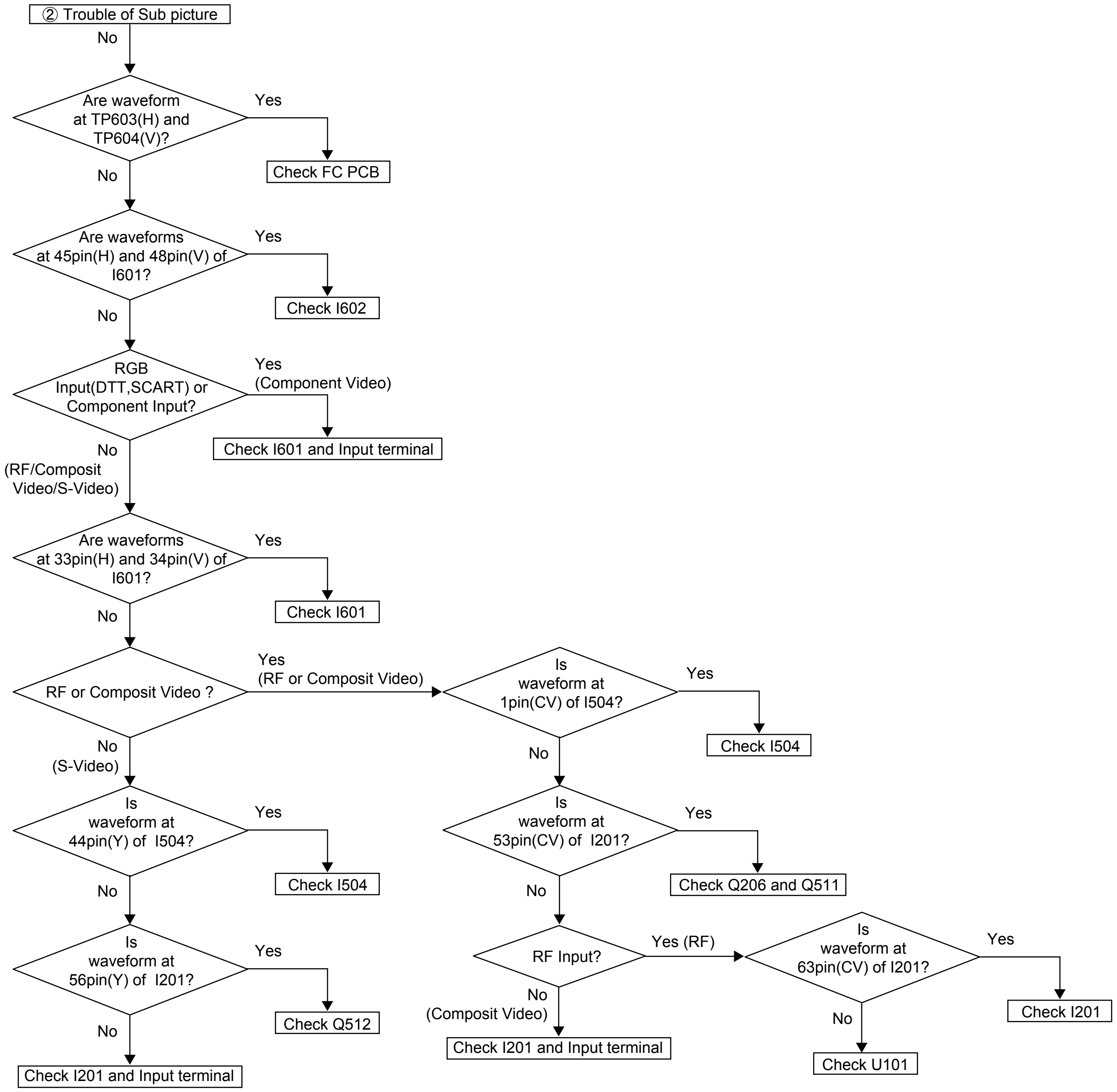
Sub Picture [Main PCB Circuit]


① Trouble of Sub picture
Are waveform at TP608(Y), TP609(Cb), and TP610(Cr)?
Yes
Check FC PCB
No
Are waveforms at 42pin(Y), 44pin(Cb), and 46pin(Cr) of I601?
Yes
Check Q604, Q605, Q606
No
RGB Input(DTT,SCART) or Component Input?
Yes (RGB(DTT,SCART) or Component Video except 480i and 576i)
SCART or Component?
Yes(SCART,Comp)
Check I601 and Input terminal
No (DTT)
Are waveform at 2pin(R), 4pin(G), 6pin(B) of PMD1?
Yes
Check around I601
No
Check DTT Module, U101 and P702 on FC PCB
No (RF/Composit Video/S-Video)
Are waveforms at 78pin(Y), 80pin(Cb), and 2pin(Cr) of I601?
Yes
Check I601
No
Are waveforms at 21pin(Y), 22pin(Cb), and 23pin(Cr) of I504?
Yes
Check Q515, Q516, Q517
No
RF or Composit Video ?
Yes (RF or Composit Video)
Is waveform at 1pin(CV) of I504?
Yes
Check I504
No
Is waveform at 53pin(CV) of I201?
Yes
Check Q206 and Q511
No
RF Input?
Yes (RF)
Is waveform at 63pin(CV) of I201?
Yes
Check I201
No
Check U101
No (Composit Video)
Check I201 and Input terminal
No (S-Video)
Are waveforms at 44pin(Y) and 43pin(C) of I504?
Yes
Check I504
No
Are waveforms at 56pin(Y) and 58pin(C) of I201?
Yes
Check Q512, Q513
No
Check I201 and Input terminal

Main Syncronization [Main PCB Circuit]


No Sync or Invalid Sync
Sub picture?
Yes(Sub picture)
②Trouble of Sub picture
No
(Signal picture or Main picture)
Are waveform at TP601(H) and TP602(V)?
Yes
Check FC PCB
No
Are waveforms at 61pin(H) and 58pin(V) of I601?
Yes
Check I602
No
RGB Input(DTT,SCART) or Component Input? (except 480i and 576i)
Yes (Component Video except 480i and 576i)
Check I601 and Input terminal
No
(Component Video for 480i, 576i /RF/Composit Video/S-Video)
Are waveforms at 31pin(H) and 32pin(V) of I601?
Yes
Check I601
No
RF or Composit Video ?
Yes (RF or Composit Video)
No
(Component Video for 480i, 576i /S-Video)
Is waveform at 148pin(CV) of I501?
Yes
Check I501
No
Is waveform at 44pin(CV) of I201?
Yes
Check Q207, Q217, Q219
No
RF Input?
Yes (RF)
Is waveform at 63pin(CV) of I201?
Yes
Check I201
No
Check U101
No
(Composit Video)
Check I201 and Input terminal
Component Video for 480i, 576i?
Yes (Component Video for 480i and 576i)
Is waveforms at 152pin(Y) of I501?
Yes
Check I501
No
Check Q540 and Input terminal
No
(S-Video)
Is waveform at 150pin(Y) of I501?
Yes
Check I501
No
Is waveform at 44pin(Y) of I201?
Yes
Check Q207, Q217, Q219
No
Check I201 and Input terminal

Sub Syncronization [Main PCB Circuit]


② Trouble of Sub picture
No
Are waveform at TP603(H) and TP604(V)?
Yes
Check FC PCB
No
Are waveforms at 45pin(H) and 48pin(V) of I601?
Yes
Check I602
No
RGB Input(DTT,SCART) or Component Input?
Yes (Component Video)
Check I601 and Input terminal
No (RF/Composit Video/S-Video)
Are waveforms at 33pin(H) and 34pin(V) of I601?
Yes
Check I601
No
RF or Composit Video ?
Yes (RF or Composit Video)
Is waveform at 1pin(CV) of I504?
Yes
Check I504
No
Is waveform at 53pin(CV) of I201?
Yes
Check Q206 and Q511
No
RF Input?
Yes (RF)
Is waveform at 63pin(CV) of I201?
Yes
Check I201
No
Check U101
No (Composit Video)
Check I201 and Input terminal
No (S-Video)
Is waveform at 44pin(Y) of I504?
Yes
Check I504
No
Is waveform at 56pin(Y) of I201?
Yes
Check Q512
No
Check I201 and Input terminal

Teletext [Main PCB Circuit]

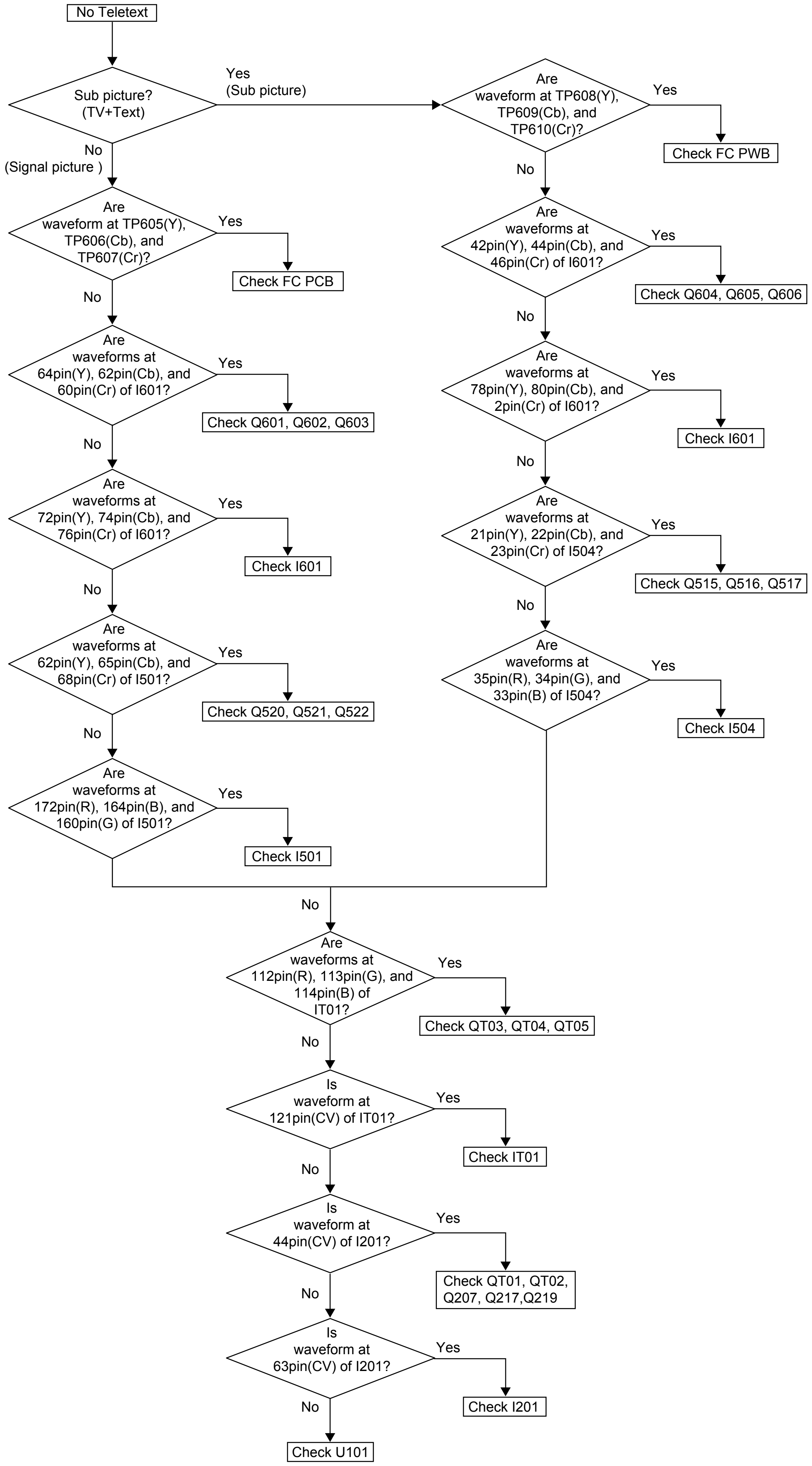
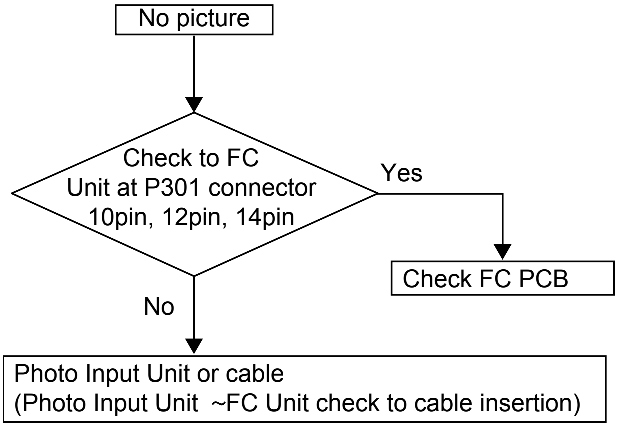
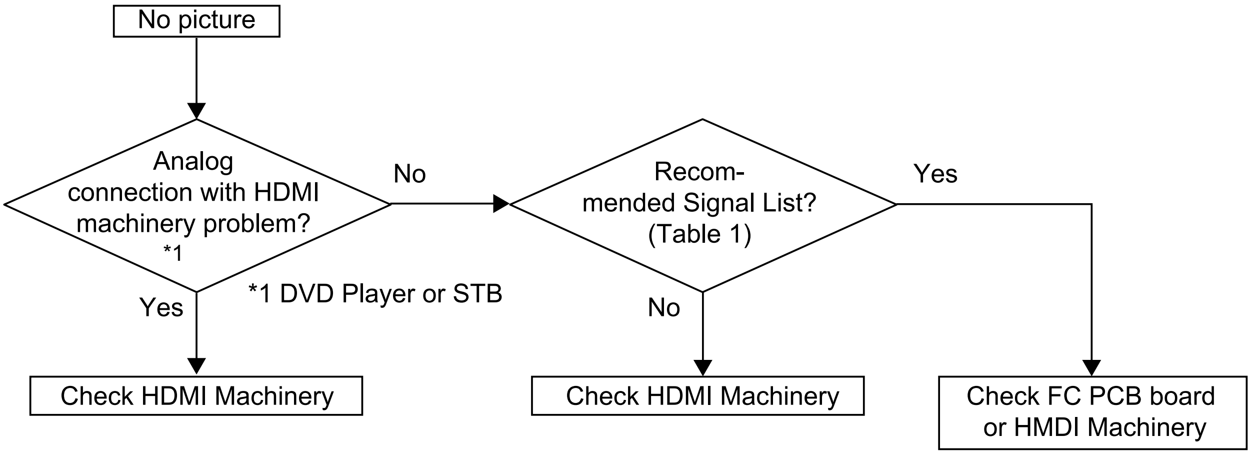

No Teletext
Sub picture? (TV+Text)
Yes (Sub picture)
No (Signal picture)
Are waveform at TP608(Y), TP609(Cb), and TP610(Cr)?
Yes
Check FC PWB
No
Are waveform at TP605(Y), TP606(Cb), and TP607(Cr)?
Yes
Check FC PCB
No
Are waveforms at 42pin(Y), 44pin(Cb), and 46pin(Cr) of I601?
Yes
Check Q604, Q605, Q606
No
Are waveforms at 64pin(Y), 62pin(Cb), and 60pin(Cr) of I601?
Yes
Check Q601, Q602, Q603
No
Are waveforms at 78pin(Y), 80pin(Cb), and 2pin(Cr) of I601?
Yes
Check I601
No
Are waveforms at 72pin(Y), 74pin(Cb), and 76pin(Cr) of I601?
Yes
Check I601
No
Are waveforms at 21pin(Y), 22pin(Cb), and 23pin(Cr) of I504?
Yes
Check Q515, Q516, Q517
No
Are waveforms at 62pin(Y), 65pin(Cb), and 68pin(Cr) of I501?
Yes
Check Q520, Q521, Q522
No
Are waveforms at 35pin(R), 34pin(G), and 33pin(B) of I504?
Yes
Check I504
Are waveforms at 172pin(R), 164pin(B), and 160pin(G) of I501?
Yes
Check I501
No
Are waveforms at 112pin(R), 113pin(G), and 114pin(B) of IT01?
Yes
Check QT03, QT04, QT05
No
Is waveform at 121pin(CV) of IT01?
Yes
Check IT01
No
Is waveform at 44pin(CV) of I201?
Yes
Check QT01, QT02, Q207, Q217,Q219
No
Is waveform at 63pin(CV) of I201?
Yes
Check I201
No
Check U101

Photo Input Unit


No picture
Check to FC Unit at P301 connector 10pin, 12pin, 14pin
Yes
Check FC PCB
No
Photo Input Unit or cable (Photo Input Unit ~FC Unit check to cable insertion)

HDMI Picture [FC PCB Circuit]


No picture
Analog connection with HDMI machinery problem? *1
No
Recom-mended Signal List? (Table 1)
Yes
Yes
*1 DVD Player or STB
No
Check HDMI Machinery
Check HDMI Machinery
Check FC PCB board or HMDI Machinery

Recommended Signal List

With HDMI input

No.	Signal mode			Horizontal frequency (kHz)	Dot clock frequency (MHz)	Remarks
	Signal Name	**Resolution**	**Vertical frequency (Hz)**			
1	VGA	640 X 480	59.94	31.47	25.18	EIA-861B
2	576i	720(1440) X 576	50.00	15.63	27.00	EIA-861B
3	480i	720(1440) X 480	59.94	15.73	27.00	EIA-861B
4	576p	720 X 576	50.00	31.25	27.00	EIA-861B
5	480p	720 X 480	59.94	31.47	27.00	EIA-861B
6	1080i/50	1920 X 1080	50.00	28.13	74.25	EIA-861B
7	1080i/60	1920 X 1080	60.00	33.75	74.25	EIA-861B
8	720p/50	1280 X 720	50.00	37.50	74.25	EIA-861B
9	720p/60	1280 X 720	60.00	45.00	74.25	EIA-861B

Table 1

8. Self-Diagnosis Function

This chassis has 2 modes of self-diagnosis function.

(1) PDP panel check mode: It indicates the one latest record of the PDP panel failure with blinking of the power indication light (LED).

(2) Signal circuit check mode: It indicates the check result on some points of the signal circuit and the history of them with On-Screen Display (OSD).

● PDP panel self-diagnosis function

This function is for a PDP panel failure with no picture.

To enter to this Self-Diagnosis mode, follow the next steps:

Preparation:

1) The Power Cord should be connected to AC line and the Main Power switch should be turned on.
2) Turn the power off by the SUB-POWER(⏻) button of the monitor or the remote control.

Procedure:

1) Press the SUB-POWER(⏻) button and ▼ button on the bottom of the monitor at the same time, and keep it for more than 5 seconds after the power turned on.
2) It generates red blinking series of the power indicator light.
3) Any operation would cancel the Self -Diagnosis mode.
4) The next table shows the PDP PCB in which failure most probably would be allocated according to the number of blinks.

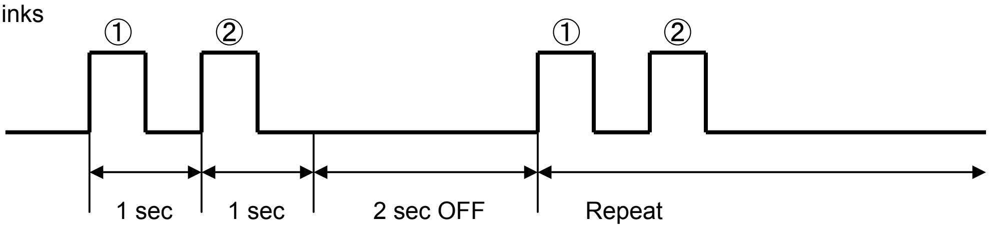
Number of red blinks of power indication light	Presumed failing PCB of PDP panel
1	Logic
2	X-SUS
3	Y-SUS, SDM
4	X-SUS, Y-SUS, SDM, PSU
5	ABUS, ADM, PSU
6	ADM temperature
7	ADM temperature
8	All of above-mentioned PCBs

SDM: Scan Driver Module
PSU: Power Supply Unit
ADM: Address Driver Module

Note) SDM is permanently contacted to glass part

[Blinking condition of power indication light]

Ex. 2 blinks



● Signal circuit self-diagnosis function

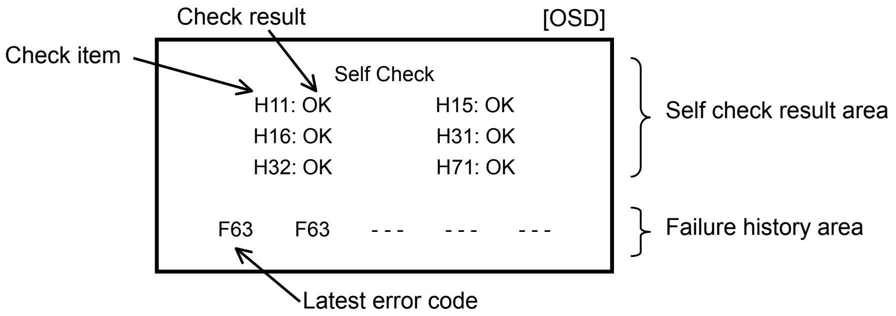
This function is for the failure of the signal circuit, for example the phenomenon as below:
"Sometimes power turns off abnormally." "Sometimes picture disappears abnormally."
To enter to this Self-Diagnosis mode, follow the next steps:

Preparation:

1) The Power Cord should be connected to AC line and the Main Power switch should be turned on.
2) Turn the power off by the SUB-POWER(⏻) button of the monitor or the remote control.

Procedure:

1) Press the SUB-POWER(⏻) button and ▲ button on the bottom of the monitor at the same time, and keep it for more than 5 seconds after the power turned on.
2) The monitor will be turned on, and it will display On-Screen Display of the Self-check result and the failure history as below.
3) Any operation would cancel the Self -Diagnosis mode.
4) The following table shows the OSD symbols and contents of failure PWB in which failure most probably would be allocated according to the number of blinks.



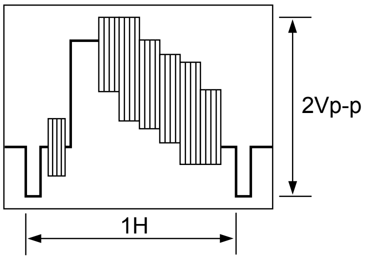
Code	stored up in failure history	Self checking item	Problem	Phenomenon	Cause
C10	–	–	No sync. (Snow noise)	OSD of " ! Check Antenna " appears.	No connection of ANT cable Preset tuning is not yet
H11	–	○	Tuner problem	Cannot receive the main signal from antenna	Communication error of U101
H15	–	○	Composite video SW IC problem	Cannot receive picture and audio Cannot change input mode	Communication error of I201
H16	–	○	Component video SW IC problem	No component picture Cannot change input mode	Communication error of I601
H31	–	○	Color demodulator IC problem (sub)	Abnormal colour Dark picture	Communication error of I504
H32	–	○	3D separator ZC problem	Abnormal colour Dark picture / No picture	Communication error of I501
H71	–	○	HDMI IC problem	No picture	Communication error of I400
F63	○	–	I^2C-bus latch problem	Cannot store setting data (Ex. Channel, Volume etc.)	SCL3/SDA3 latched up

If you clear history of failure, make FACTORY RESET: enter the factory setting mode; press the SUB-POWER(⏻) button, INPUT SELECT(⇥) button and ▲ button on the bottom of the monitor at the same time. And keep it for more than 5 seconds after the power turned on.

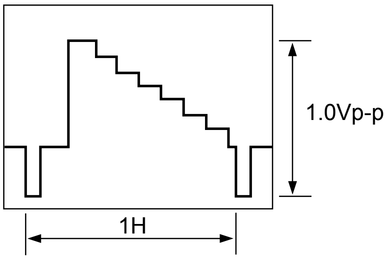
9. Basic circuit diagram

● Waveform

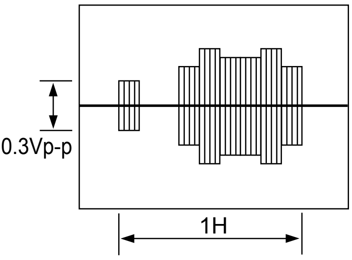
① I201(MAIN.V)(44) PIN
② I201(SUB.V)(53) PIN



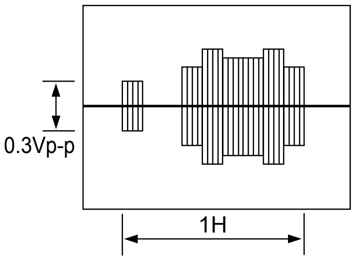
③ I501 YIN(S-VIDEO)(44) PIN
④ I501 YIN(3D)(5) PIN



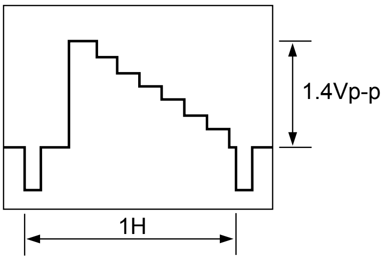
⑤ I501 CIN(S-VIDEO)(43) PIN



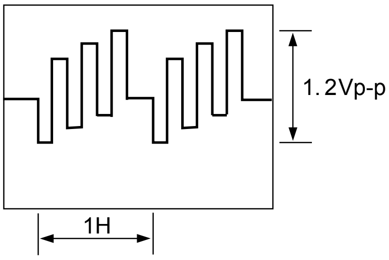
⑥ I501 CIN(3D)(7) PIN



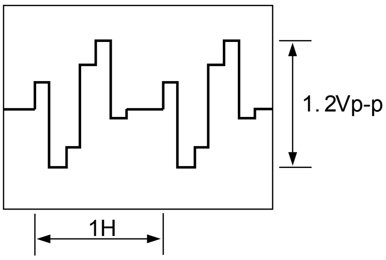
⑦ TP65(MY)
⑧ TP68(SY)



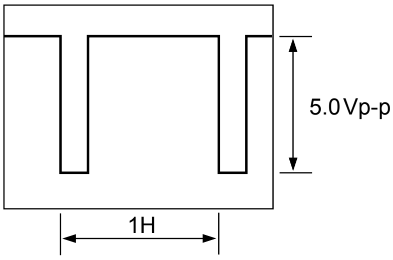
⑨ TP66(MPB)
⑩ TP69(SPB)



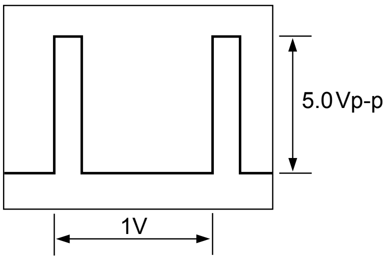
⑪ TP67(MPR)
⑫ TP6A(SPR)



⑬ TP61(MH)
⑭ TP63(SH)

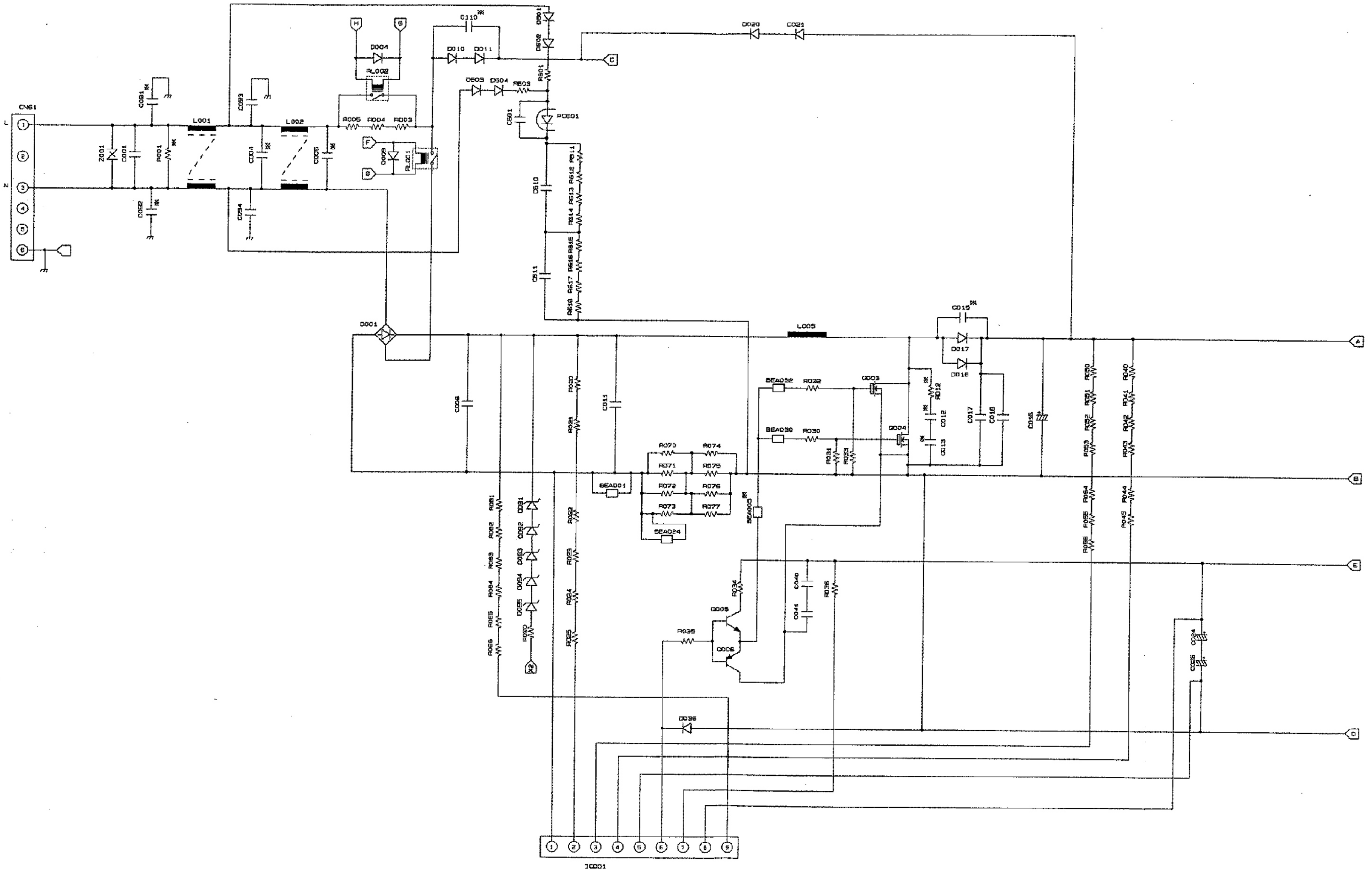


⑮ TP62(MV)
⑯ TP64(SV)



Basic circuit diagram list

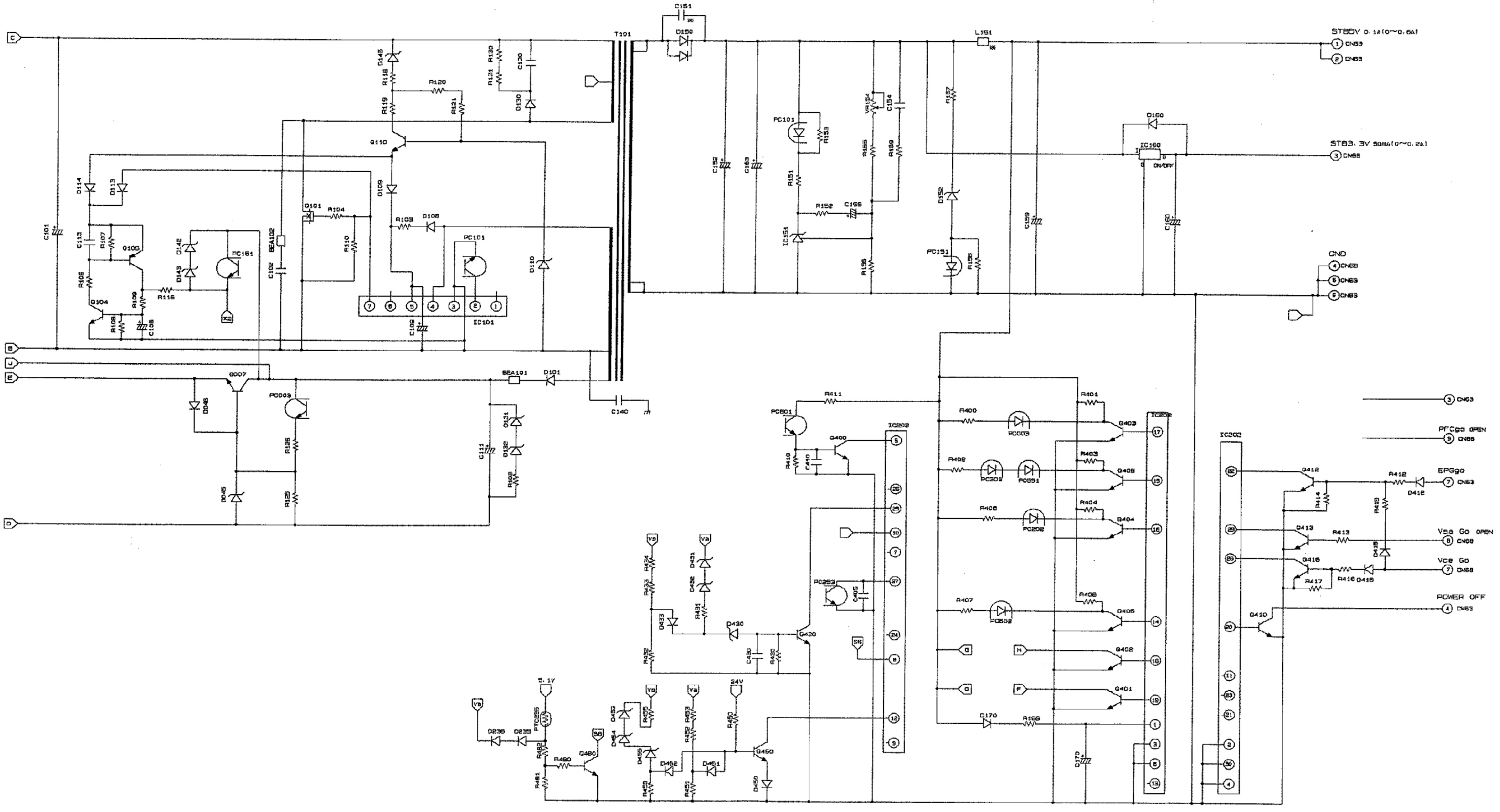
PCB assembly Power Unit 1 57
PCB assembly Power Unit 2 58
PCB assembly Power Unit 3 59
PCB assembly Power Unit 4 60
PCB assembly Power Unit 5 61
PCB assembly MAIN 1 62
PCB assembly MAIN 2 63
PCB assembly MAIN 3 64
PCB assembly MAIN 4 65
PCB assembly MAIN 5 66
PCB assembly LED PDP 67
PCB assembly SWIVEL 67
PCB assembly POWER□SW□ 67
PCB assembly Filter & Terminal 67
PCB assembly Sub□POWER□ 68
PCB assembly CONTROL□ 69
PCB assembly SOUND□ 70
PCB assembly FC 1 71
PCB assembly FC 2 72
PCB assembly FC 3□ 73
PCB assembly FC 4□ 74
PCB assembly FC 5 75
PCB assembly FC 6 76
PCB assembly FC 7 77
PCB assembly FC 8 78
PCB assembly FC 9 79


CN61
L
N
1
2
3
4
5
6
Z001
C001
R001
C091
C092
L001
C093
C094
C004
L002
C005
H
G
D004
RL002
R005
R004
R003
F
G
D009
RL001
C110
D010
D011
D601
D602
C
R601
D603
D604
R603
C601
PC601
R611
R612
R613
R614
R615
R616
R617
R618
C610
C611
D020
D021
D001
C006
R020
R021
C011
L005
C015
D017
D018
R012
C012
C013
C017
C018
C016
BEAD32
R032
Q003
BEAD30
R030
Q004
R031
R033
R070
R071
R072
R073
R074
R075
R076
R077
BEAD01
BEAD24
BEAD05
R050
R051
R052
R053
R054
R055
R056
R040
R041
R042
R043
R044
R045
A
B
E
D
R061
R062
R063
R064
R065
R066
D091
D092
D093
D094
D095
R090
X2
R022
R023
R024
R025
R034
C040
C041
R036
Q005
R035
Q006
C024
C026
D035
1
2
3
4
5
6
7
8
9
IC001

SM 011

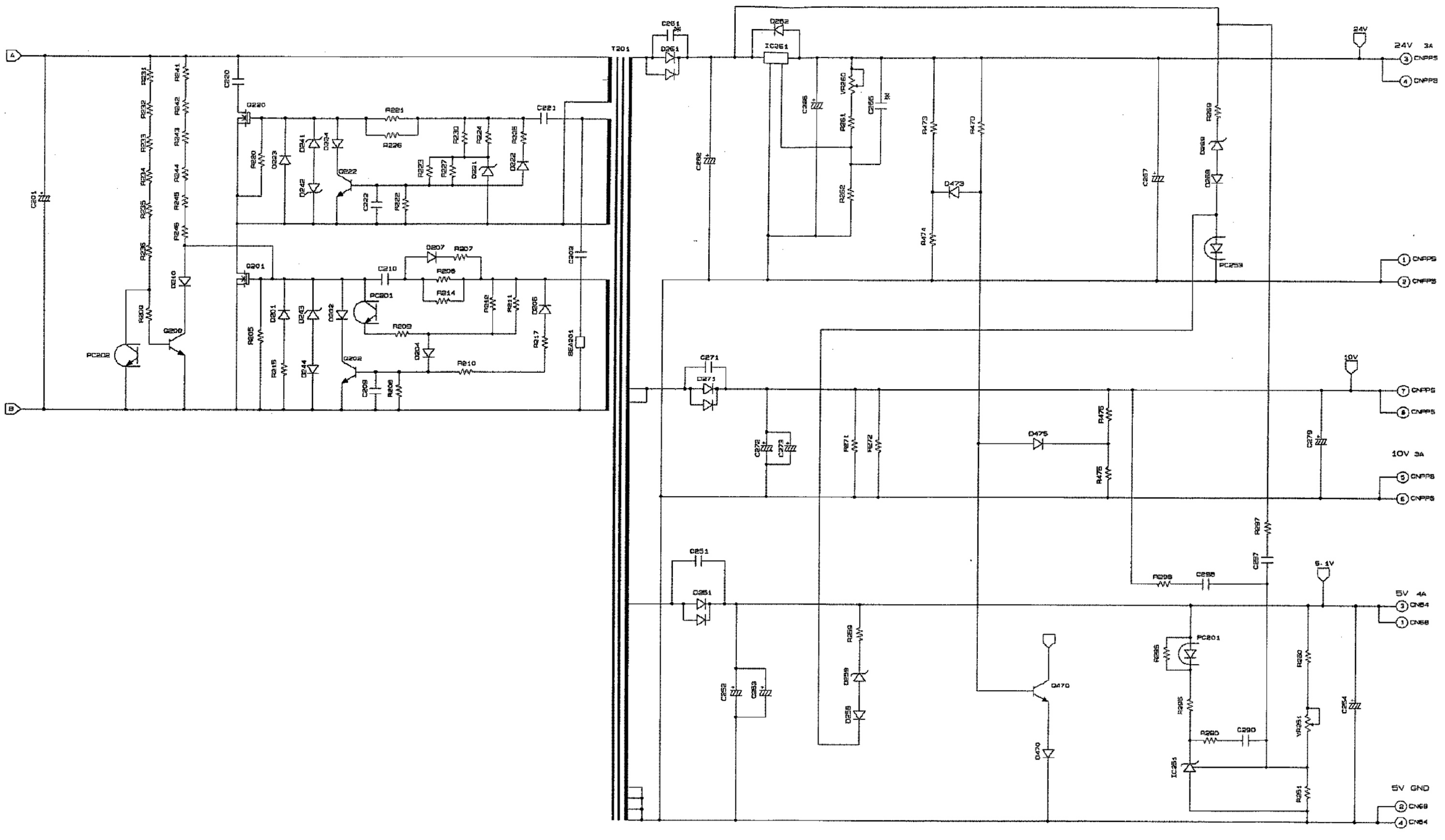
POWER BOARD CIRCUIT SHEET 1

HITACHI


STB5V 0.1A(0~0.6A)
CN53
STB3.3V 50mA(0~0.2A)
CN68
GND
PFCgo OPEN
EPGgo
Vsa Go OPEN
Vcs Go
POWER OFF
T101
C151
D150
L151
IC160
ON/OFF
D160
PC101
PC151
IC151
IC101
IC202
Q110
Q007
Q400
Q430
Q450
Q480
Q401
Q402
Q403
Q404
Q405
Q406
Q410
Q412
Q413
Q415
PC003
PC601
PC253
PC302
PC551
PC202
PC502
PTC255
BEA101
BEA102
D101
D170
R411
R400
R401
R402
R403
R404
R405
R406
R407
R412
R413
R414
R415
R416
R417
R168
C170
C140
Vs
Va
24V
5.1V
S6

※ : OPTIONAL

POWER BOARD CIRCUIT SHEET 2

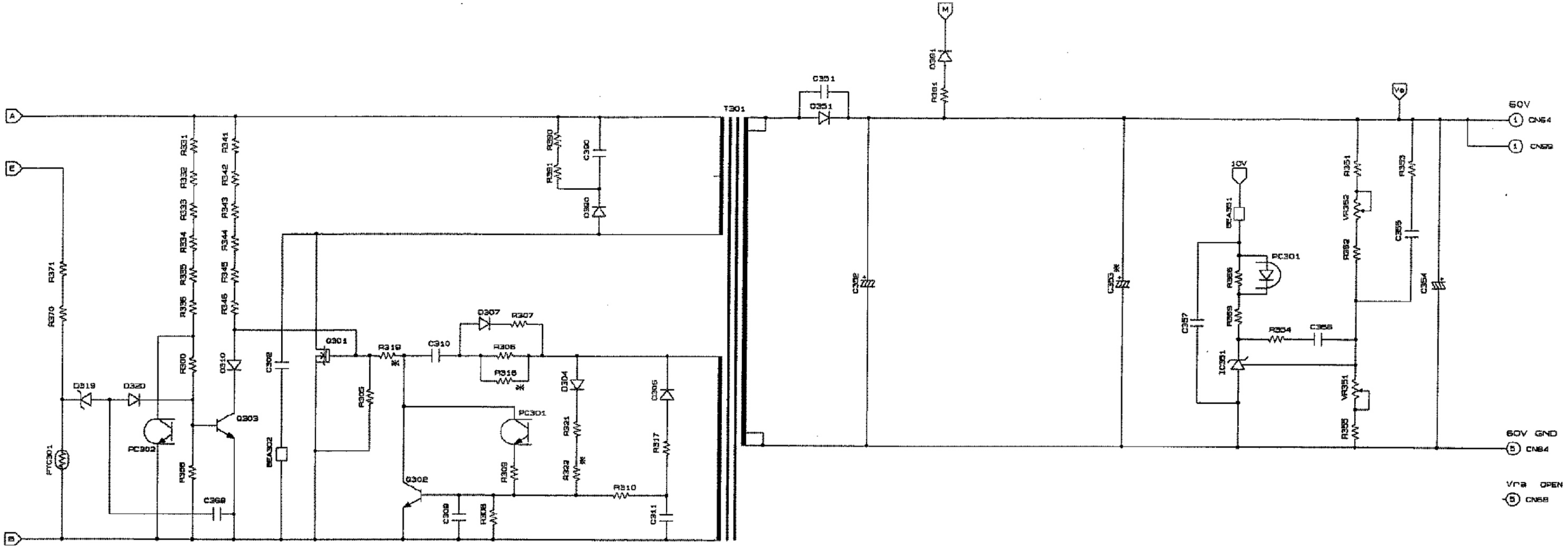

4
B
C201
R231
R232
R233
R234
R235
R236
R241
R242
R243
R244
R245
R246
R202
PC202
Q200
D210
C220
Q220
R220
D223
D241
D324
D242
Q222
C222
R222
R221
R226
R223
R227
R230
R224
D221
R225
D222
C221
Q201
R205
R215
D201
D243
D244
D212
C210
PC201
Q202
C209
R208
D207
R207
R206
R214
R209
D204
R210
R212
R211
D206
R217
C302
BEA201
T201
C261
D261
D262
IC261
C266
VR260
R261
C255
R262
C262
R473
R470
D473
R474
C257
R269
D269
D259
PC253
24V
24V 3A
3 CNPP5
4 CNPP5
1 CNPP5
2 CNPP5
C271
D271
C272
C273
R271
R272
D475
R476
R475
C279
10V
7 CNPP5
8 CNPP5
10V 3A
5 CNPP5
6 CNPP5
R297
C257
R298
C298
C251
D251
C252
C253
R259
D259
D258
Q470
D470
PC201
R286
R285
R280
C290
IC255
R280
VR251
R251
C254
5.1V
5V 4A
3 CN64
1 CN68
5V GND
2 CN68
4 CN64

※ : OPTIONAL

SM 011

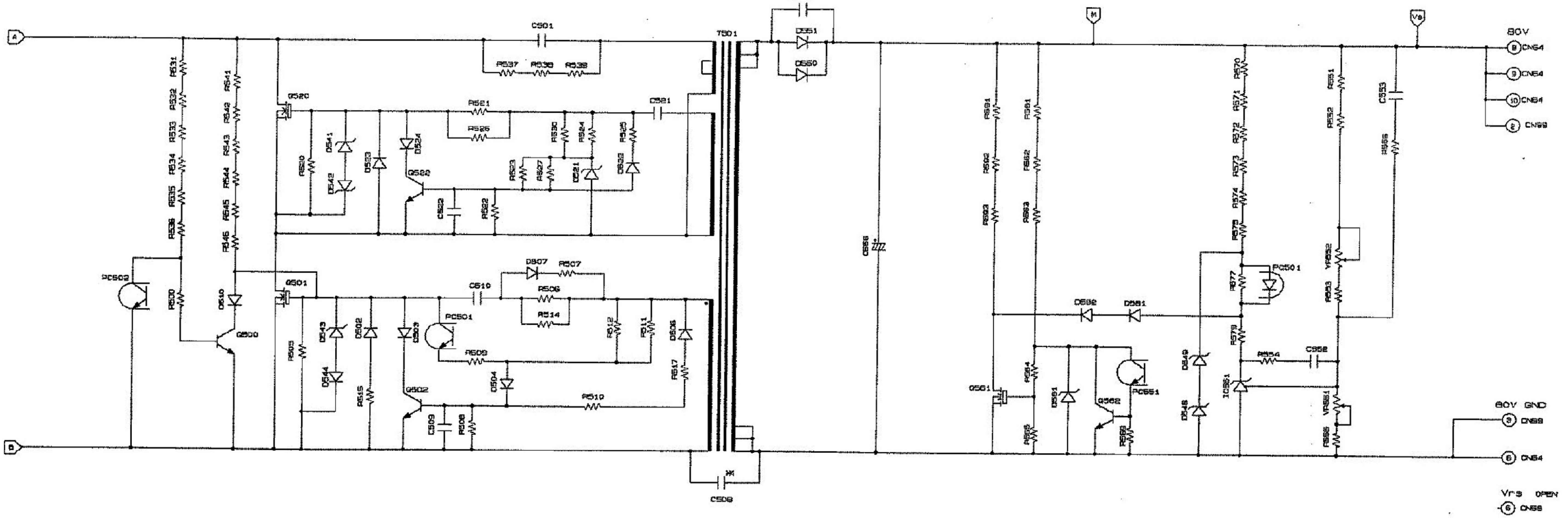
POWER BOARD CIRCUIT SHEET 3

HITACHI


A
E
B
R371
R370
D319
D320
PTC301
PC302
R331
R332
R333
R334
R335
R336
R300
R358
C368
R341
R342
R343
R344
R345
R346
D310
Q303
C302
BEA302
Q301
R319
※
R305
C310
D307
R307
R306
R316
※
D304
R321
R322
※
PC301
R309
Q302
C309
R308
R310
D306
R317
C311
R390
R391
C390
D390
T301
C351
D351
M
D391
R381
C352
C353
※
10V
BEA351
PC301
R356
R359
C357
R354
C356
IC351
Vs
R351
VR352
R352
VR351
R355
R353
C355
C354
60V
CN54
CN59
60V GND
CN64
Vra OPEN
CN68

※ : OPTIONAL

POWER BOARD CIRCUIT SHEET 4

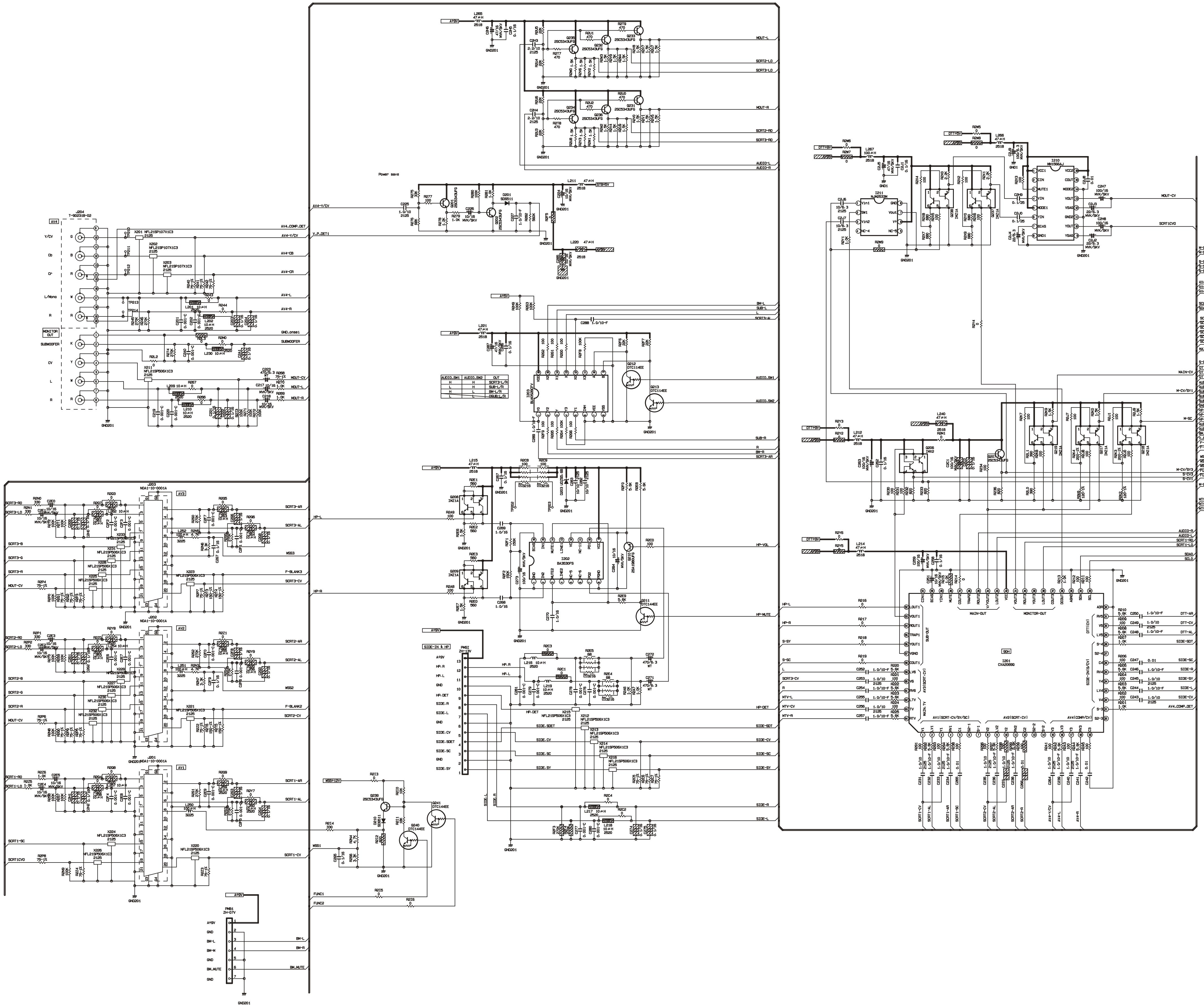

A
B
C501
R537
R538
R539
T501
C551
D551
D550
M
Vs
80V
8 CN64
9 CN64
10 CN64
2 CN99
R531
R532
R533
R534
R535
R536
R541
R542
R543
R544
R545
R546
Q520
R521
R526
C521
R520
D541
D542
D523
D524
Q522
C522
R522
R523
R527
R530
R524
D521
R525
D522
PC502
R530
D510
Q500
Q501
D507
R507
C510
R506
R514
PC501
D543
D544
D502
D503
R505
R515
R509
D504
R512
R511
D506
R517
Q502
C509
R508
R519
C508
※
C556
R591
R592
R593
R561
R562
R563
D582
D581
Q561
R564
R565
D561
Q562
PC551
R569
R570
R571
R572
R573
R574
R575
R577
PC501
R579
R554
C552
D549
D548
IC551
R551
R552
C553
R556
VR552
R553
VR551
R555
80V GND
3 CN99
6 CN64
Vrs OPEN
6 CN56

※:OPTIONAL

SM 011

POWER BOARD CIRCUIT SHEET 5

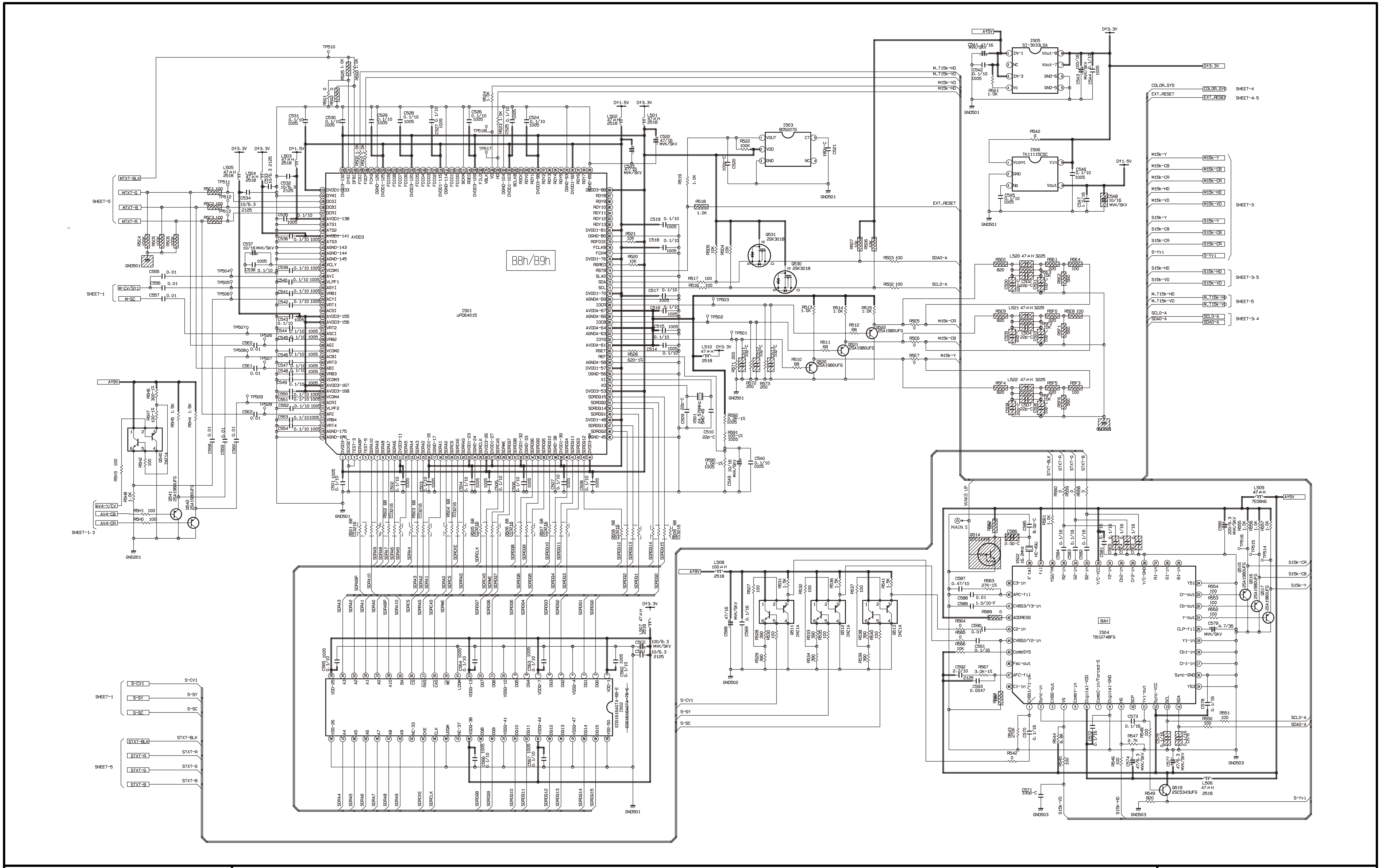
HITACHI



SM 011

MAIN BOARD CIRCUIT SHEET 1

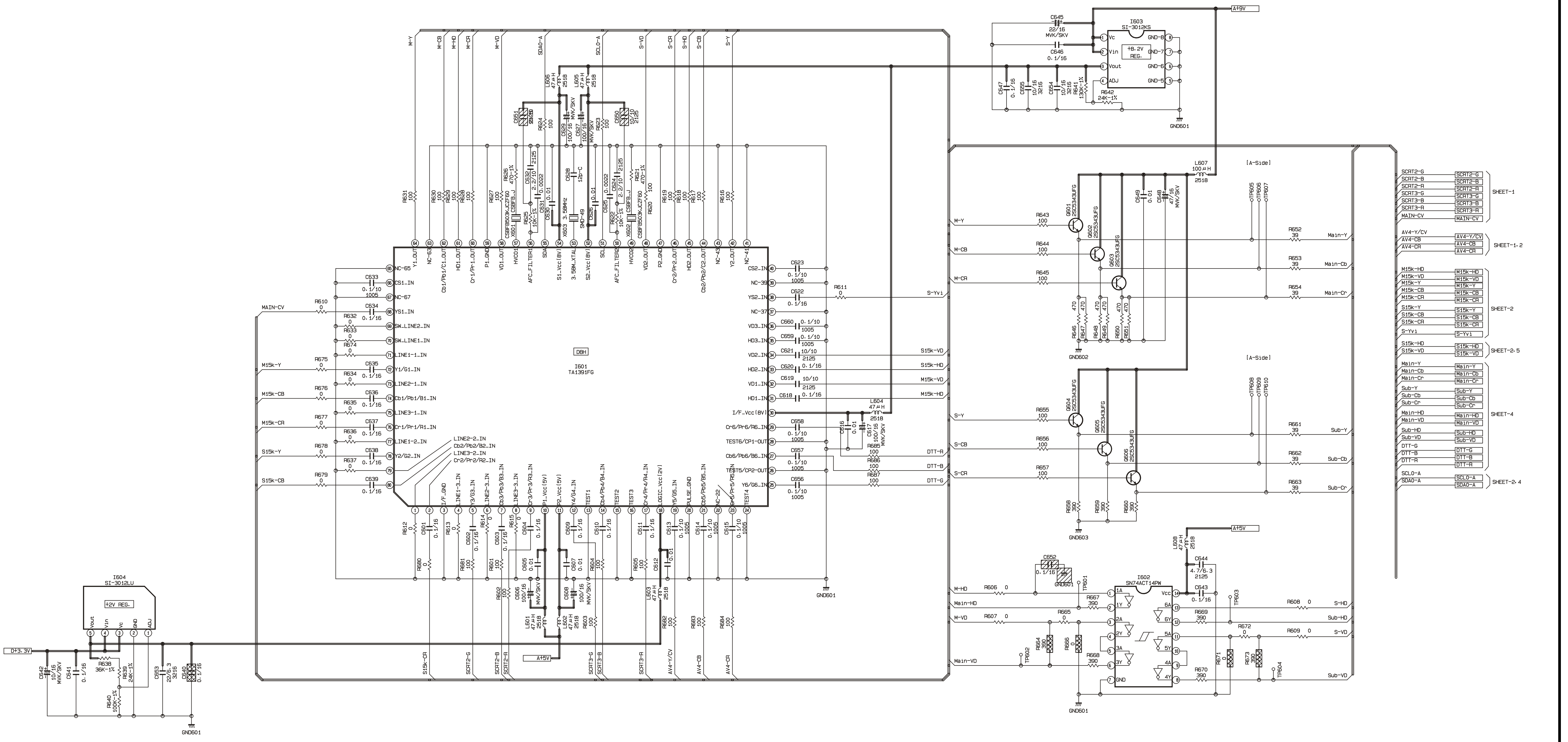
HITACHI


I501
uPD64015
B8h/B9h
I502
EDS1616AGTA-80-E
I503
BD5227G
I504
TB1274BFG
B4H
I505
SI-3033LSA
I506
TK11115CSC
Q530
2SK3018
Q531
2SK3018
Q519
2SC5343UFG
Q514
MAIN
WAKE UP
X501
24.576MHz
D+3.3V
D+1.5V
A+5V
A+9V
MTXT-BLK
MTXT-G
MTXT-B
MTXT-R
SHEET-5
SHEET-1
M-CV/SY1
M-SC
AV4-Y/CV
AV4-CB
AV4-CR
SHEET-1-3
S-CV1
S-SY
S-SC
STXT-BLK
STXT-R
STXT-G
STXT-B
COLOR_SYS
EXT_RESET
SHEET-4
SHEET-4-5
M15k-Y
M15k-CB
M15k-CR
M15k-HD
M15k-VD
S15k-Y
S15k-CB
S15k-CR
S-Yv1
SHEET-3
S15k-HD
S15k-VD
SHEET-3-5
M_T15k-HD
M_T15k-VD
SHEET-5
SCL0-A
SDA0-A
SHEET-3-4
GND501
GND502
GND503
GND201

SM 011

MAIN BOARD CIRCUIT SHEET 2

HITACHI

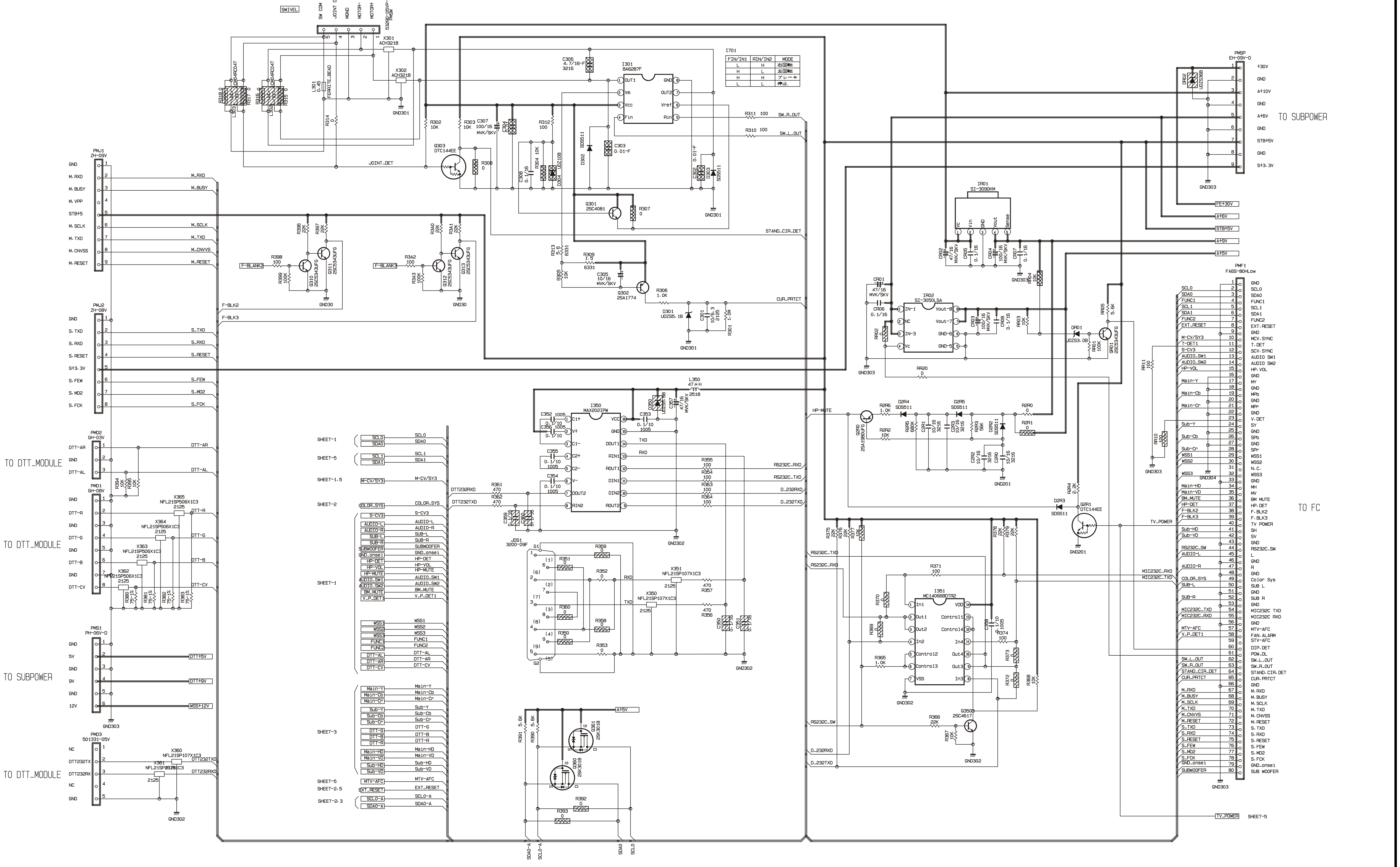


I601
TA1391FG
DBH
I603
SI-3012KS
+8.2V REG.
I604
SI-3012LU
+2V REG.
I602
SN74ACT14PW
A+5V
D+3.3V
GND601
GND602
GND603
Q601 2SC5343UFG
Q602 2SC5343UFG
Q603 2SC5343UFG
Q604 2SC5343UFG
Q605 2SC5343UFG
Q606 2SC5343UFG
X601
X602
X603 3.58MHz
L601
L602
L603
L604 47μH 2518
L605 47μH 2518
L606 47μH 2518
L607 100μH 2518
L608 47μH 2518
[A-Side]
M-Y
M-CB
M-CR
M-HD
M-VD
SDA0-A
SCL0-A
S-VD
S-CR
S-HD
S-CB
S-Y
MAIN-CV
M15k-Y
M15k-CB
M15k-CR
S15k-Y
S15k-CB
S15k-CR
S15k-VD
S15k-HD
M15k-VD
M15k-HD
S-Yvi
DTT-R
DTT-B
DTT-G
Main-Y
Main-Cb
Main-Cr
Sub-Y
Sub-Cb
Sub-Cr
Main-HD
Main-VD
Sub-HD
Sub-VD
S-HD
S-VD
SCRT2-G
SCRT2-B
SCRT2-R
SCRT3-G
SCRT3-B
SCRT3-R
MAIN-CV
SHEET-1
AV4-Y/CV
AV4-CB
AV4-CR
SHEET-1,2
M15k-HD
M15k-VD
M15k-Y
M15k-CB
M15k-CR
SHEET-2
S15k-HD
S15k-VD
SHEET-2,5
SHEET-4
DTT-G
DTT-B
DTT-R
SCL0-A
SDA0-A
SHEET-2,4
TP601
TP602
TP603
TP604
TP605
TP606
TP607
TP608
TP609
TP610

SM 011

MAIN BOARD CIRCUIT SHEET 3

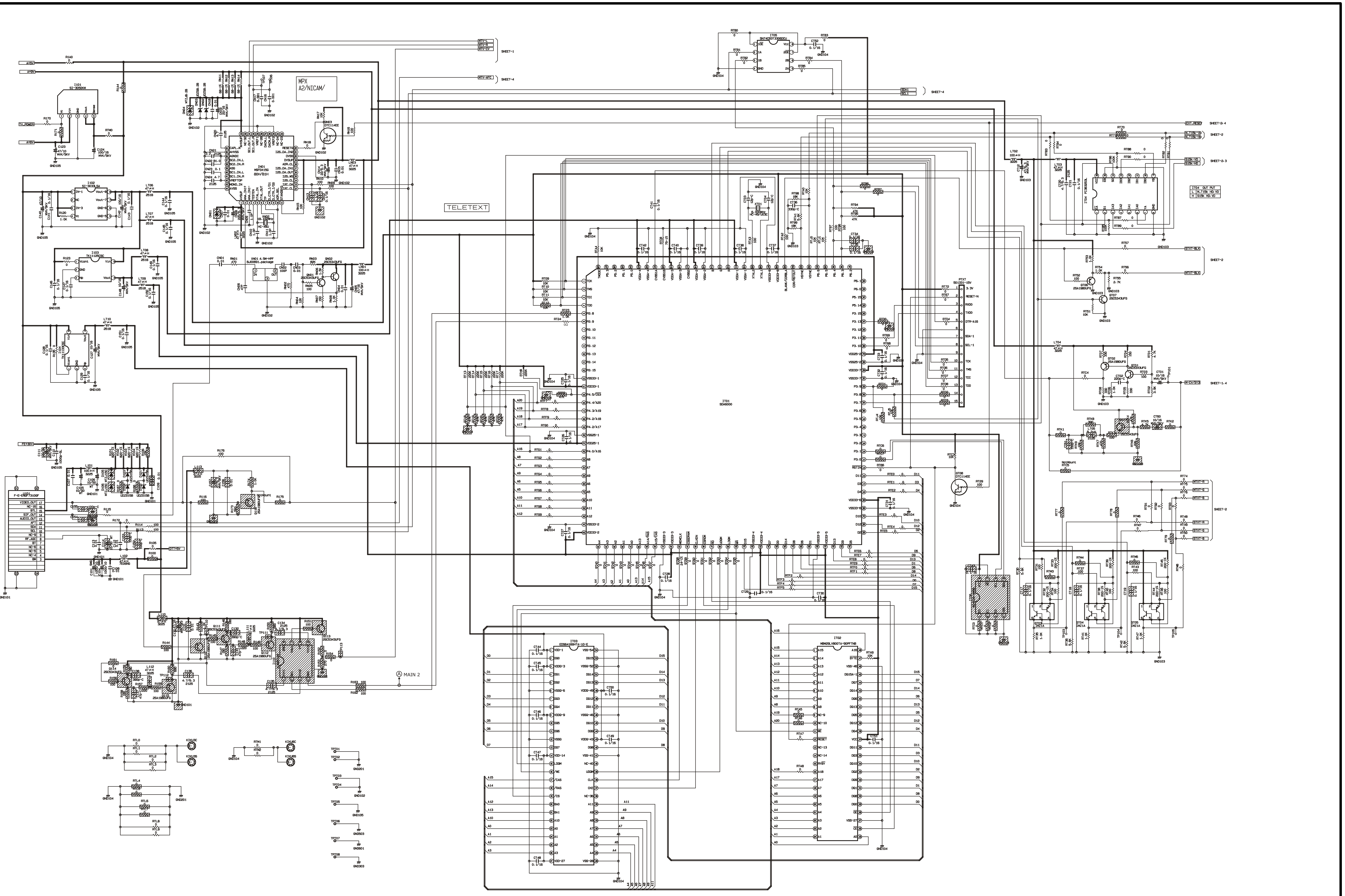
HITACHI


SWIVEL
PMJ1 ZH-09V
GND
M.RXD
M.BUSY
M.VPP
STB+5
M.SCLK
M.TXD
M.CNVSS
M.RESET
PMJ2 ZH-08V
S.TXD
S.RXD
S.RESET
S+3.3V
S.FEW
S.MD2
S.FCK
TO DTT_MODULE
PMD2 GH-03V
DTT-AR
DTT-AL
PMD1 GH-08V
DTT-R
DTT-G
DTT-B
DTT-CV
TO SUBPOWER
PMS1 PH-06V-D
5V
9V
12V
DTT+5V
DTT+9V
WSS+12V
PMD3 501331-05V
NC
DTT232TX
DTT232RX
I301 BA6287F
I701
FIN/IN1
RIN/IN2
MODE
I350 MAX202IPW
JDS1 3200-09F
I351 MC14066BDTR2
IR01 SI-3090KM
IR02 SI-3050LSA
PMSP EH-09V-D
+30V
A+10V
A+6V
STB+5V
S+3.3V
FE+30V
A+6V
STB+5V
A+9V
A+5V
PMF1 FA5S-80HLow
TO FC
SHEET-1
SHEET-5
SHEET-1.5
SHEET-2
SHEET-3
SHEET-2.5
SHEET-2.3
SW_R_OUT
SW_L_OUT
STAND_CIR_DET
CUR_PRTCT
JOINT_DET
HP-MUTE
TV_POWER
RS232C_RXD
RS232C_TXD
D_232RXD
D_232TXD
MIC232C_RXD
MIC232C_TXD
RS232C_SW
SDA0-A
SCL0-A
SDA0
SCL0
GND301
GND302
GND303
GND304
GND201

SM 011

MAIN BOARD CIRCUIT SHEET 4

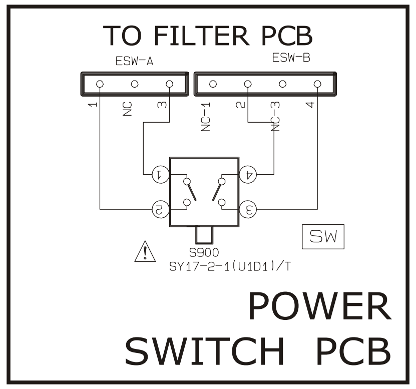
HITACHI

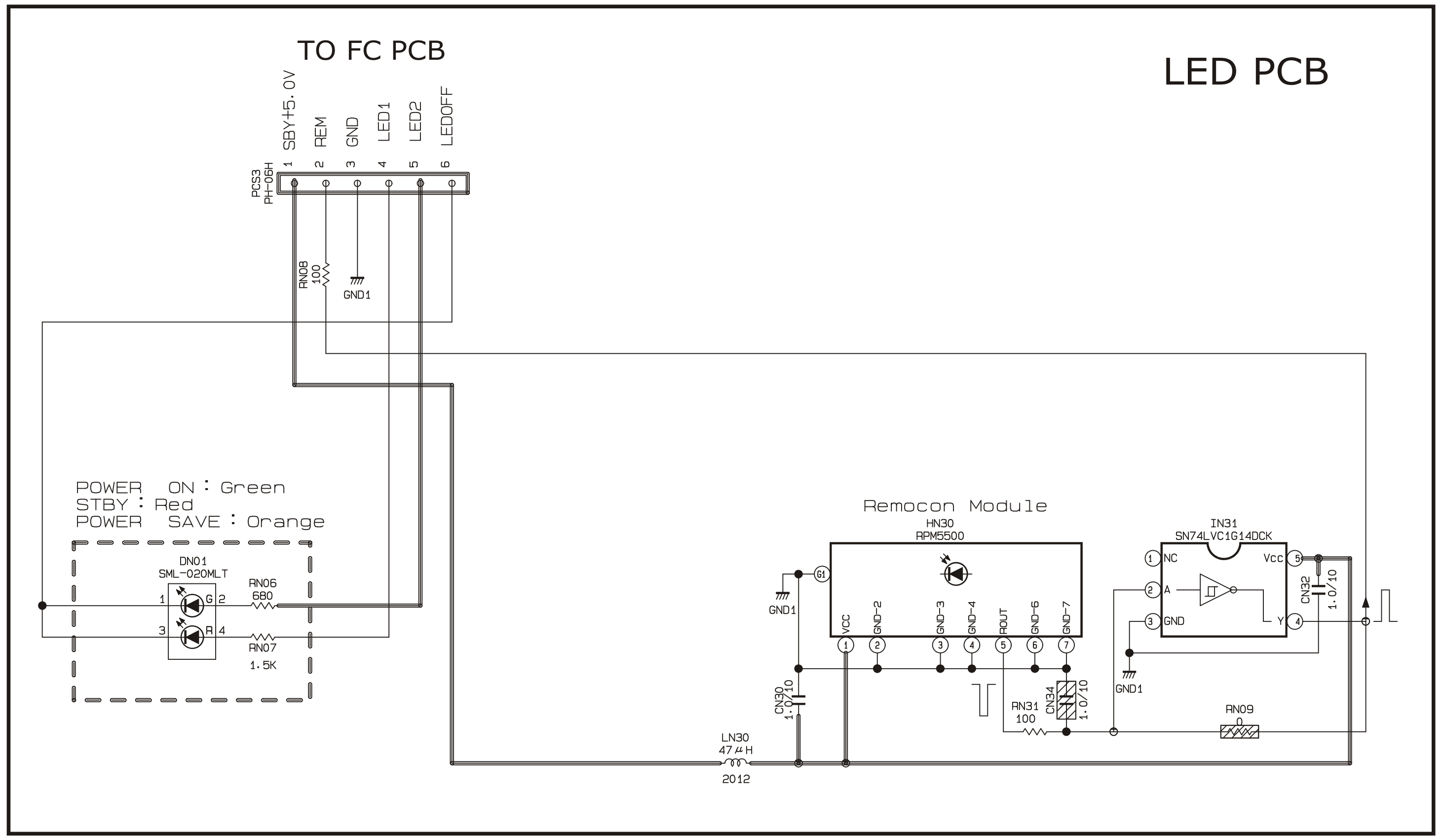

MPX
A2/NICAM/
TELETEXT
MAIN 2
SHEET-1
SHEET-4
SHEET-2
SHEET-3
SHEET-1.4
I701
SDA6000
I702
I703
I705
PTXT
I101
I102
I103
I104
IN01
MSP3415G
GND101
GND102
GND103
GND104
GND105

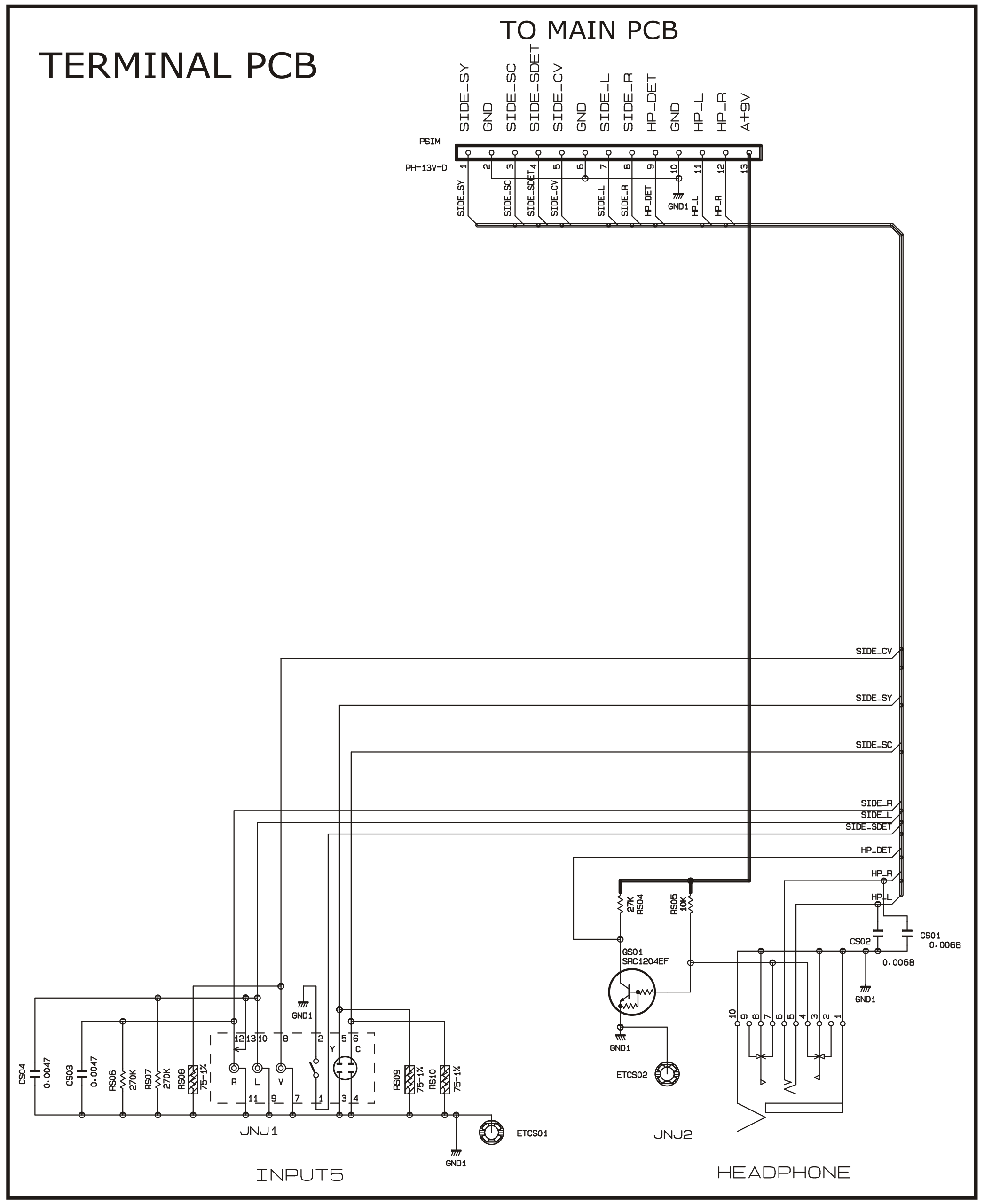
SM 011

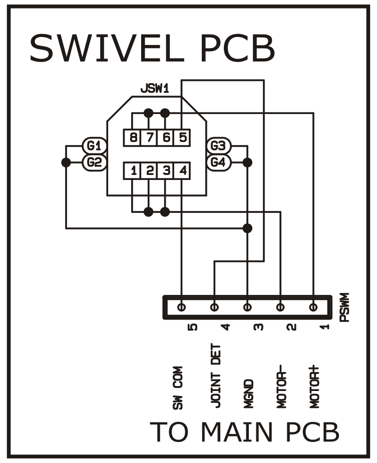
MAIN BOARD CIRCUIT SHEET 5

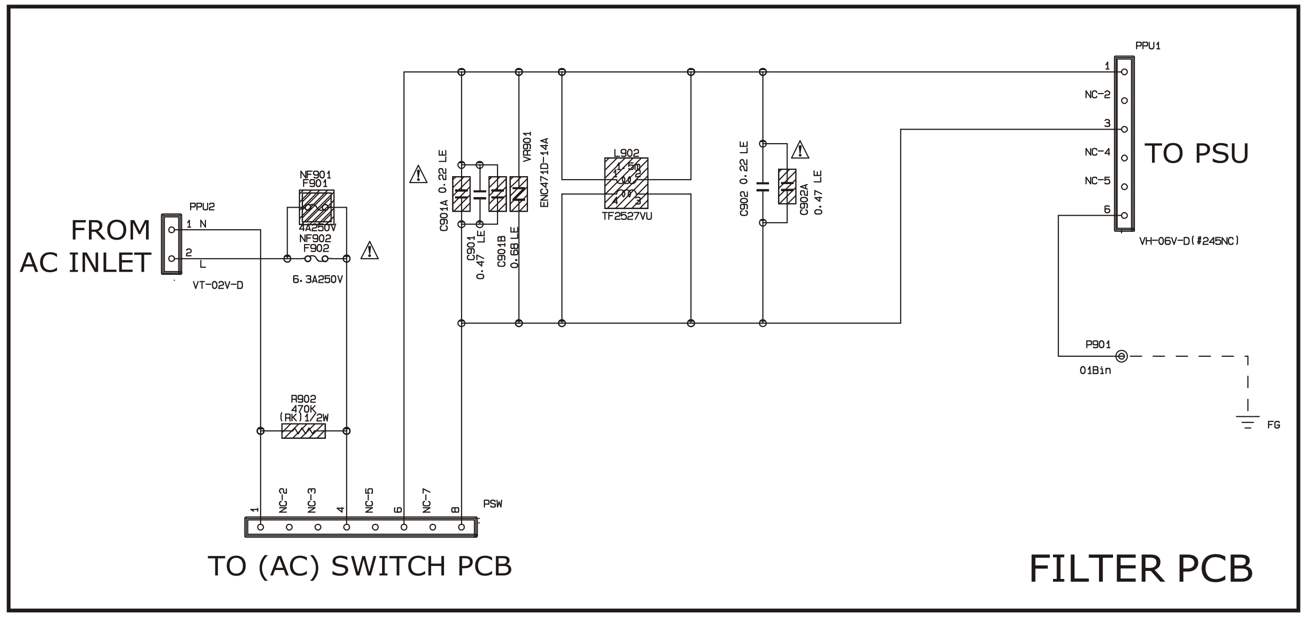
HITACHI


TO FILTER PCB
ESW-A
ESW-B
1
NC
3
NC-1
2
NC-3
4
S900
SY17-2-1(U1D1)/T
SW
POWER SWITCH PCB


TO FC PCB
LED PCB
PCS3
PH-06H
1 SBY+5.0V
2 REM
3 GND
4 LED1
5 LED2
6 LEDOFF
RN08
100
GND1
POWER ON : Green
STBY : Red
POWER SAVE : Orange
DN01
SML-020MLT
G
R
RN06
680
RN07
1.5K
Remocon Module
HN30
RPM5500
G1
GND1
VCC
GND-2
GND-3
GND-4
ROUT
GND-6
GND-7
IN31
SN74LVC1G14DCK
NC
A
GND
Vcc
Y
CN32
1.0/10
GND1
CN30
1.0/10
RN31
100
CN34
1.0/10
RN09
0
LN30
47μH
2012


TERMINAL PCB
TO MAIN PCB
PSIM
PH-13V-D
1 SIDE_SY
2 GND
3 SIDE_SC
4 SIDE_SDET
5 SIDE_CV
6 GND
7 SIDE_L
8 SIDE_R
9 HP_DET
10 GND
11 HP_L
12 HP_R
13 A+9V
GND1
SIDE_CV
SIDE_SY
SIDE_SC
SIDE_R
SIDE_L
SIDE_SDET
HP_DET
HP_R
HP_L
RS04
27K
RS05
10K
QS01
SRC1204EF
CS02
0.0068
CS01
0.0068
GND1
ETCS02
CS04
0.0047
CS03
0.0047
RS06
270K
RS07
270K
RS08
75-1%
R
L
V
Y
C
RS09
75-1%
RS10
75-1%
ETCS01
JNJ1
INPUT5
JNJ2
HEADPHONE

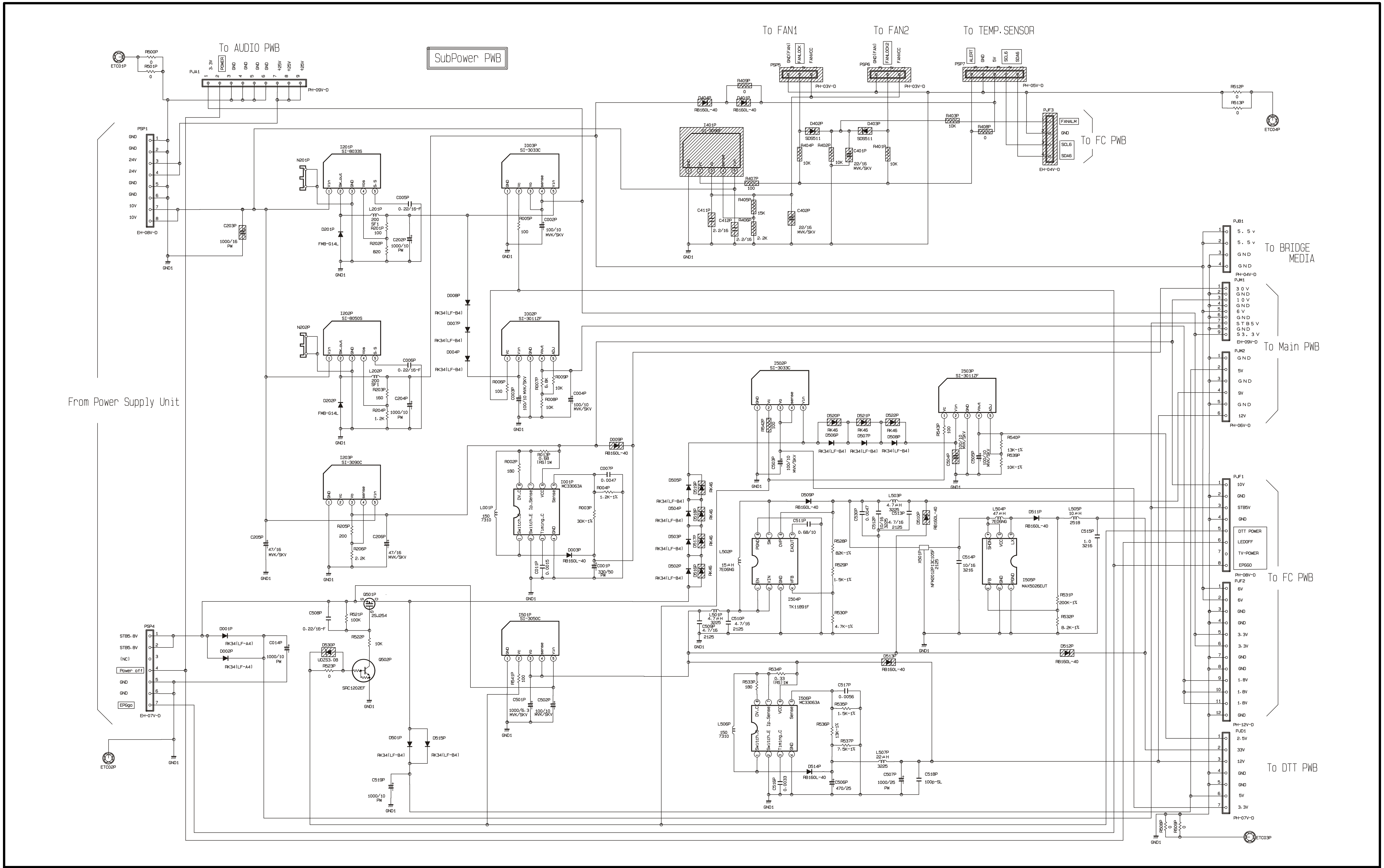

SWIVEL PCB
JSW1
G1
G2
G3
G4
8 7 6 5
1 2 3 4
PSWM
5 SW COM
4 JOINT DET
3 MGND
2 MOTOR-
1 MOTOR+
TO MAIN PCB


FROM AC INLET
PPU2
1 N
2 L
VT-02V-D
NF901
F901
4A250V
NF902
F902
6.3A250V
R902
470K
(RK)1/2W
C901A 0.22 LE
C901 0.47 LE
C901B 0.68 LE
VR901
ENC471D-14A
L902
1.5m
TF2527VU
C902 0.22 LE
C902A 0.47 LE
PPU1
1
NC-2
3
NC-4
NC-5
6
TO PSU
VH-06V-D(#245NC)
P901
01Bin
FG
PSW
1 NC-2 NC-3 4 NC-5 6 NC-7 8
TO (AC) SWITCH PCB
FILTER PCB

▨ : NOT MOUNTED

MISC. CIRCUITS

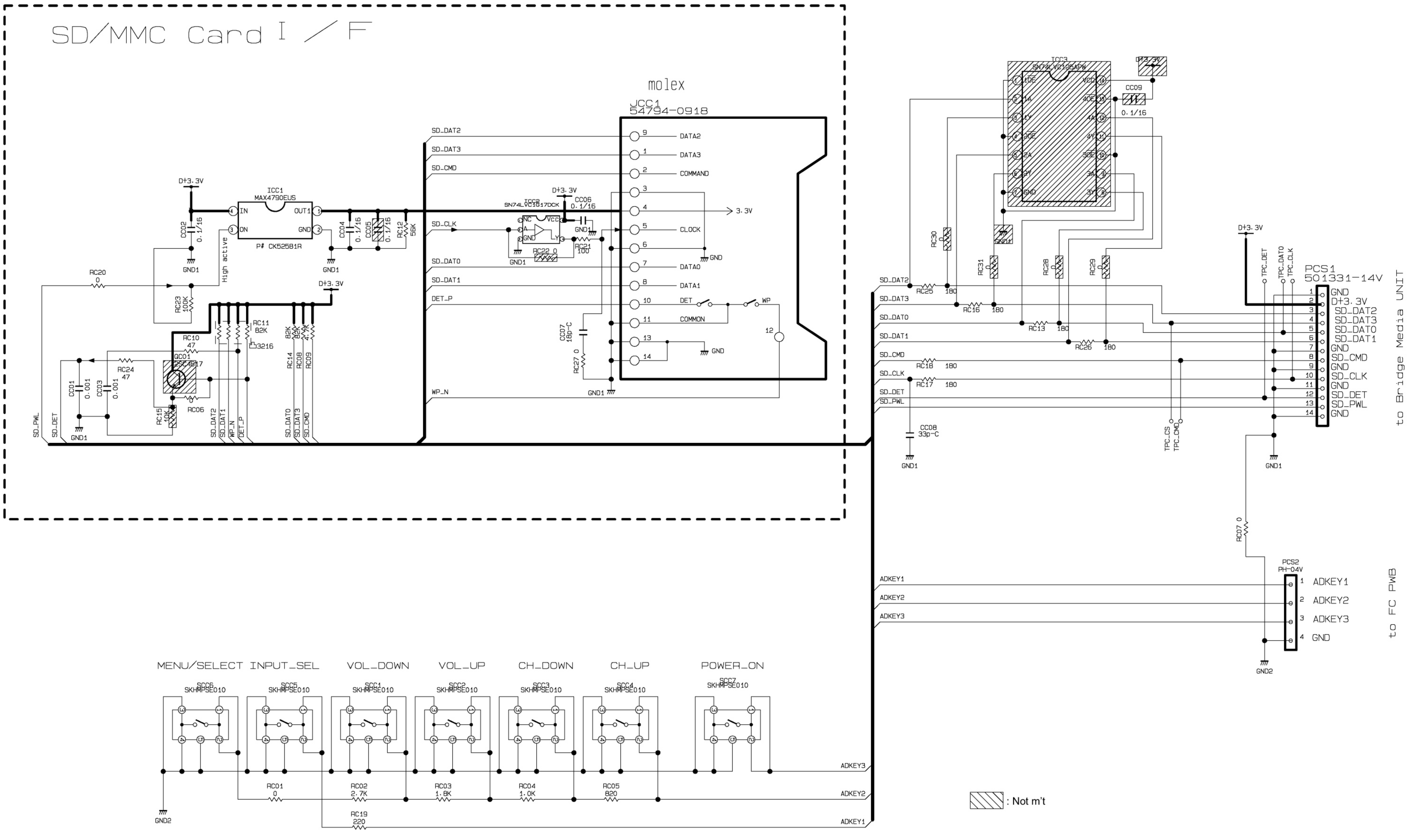
HITACHI


SubPower PWB
To AUDIO PWB
To FAN1
To FAN2
To TEMP.SENSOR
To FC PWB
To BRIDGE MEDIA
To Main PWB
To FC PWB
To DTT PWB
From Power Supply Unit
PSP1
PJA1
PSP4
PSP5
PSP6
PSP7
PJF3
PJB1
PJM1
PJM2
PJF1
PJF2
PJD1
I201P SI-8033S
I202P SI-8050S
I203P SI-3090C
I003P SI-3033C
I002P SI-3011ZF
I001P MC33063A
I401P
I501P SI-3050C
I502P SI-3033C
I503P SI-3011ZF
I504P TK11891F
I505P MAX5026EUT
I506P MC33063A
Q501P 2SJ254
Q502P SRC1202EF
ETC01P
ETC02P
ETC03P
ETC04P
GND1
3.3V
POWER
GND
+25V
24V
10V
5.5V
30V
6V
STB5V
S3.3V
5V
9V
12V
DTT POWER
LEDOFF
TV-POWER
EPGGO
1.8V
2.5V
33V
STB5.8V
(NC)
Power off
EPGgo
FANALM
SDA6
SCL6
ALERT
GND(FAN)
FANLOCK
FANLOCK2
FANVCC
EH-08V-D
EH-07V-D
EH-04V-D
EH-09V-D
PH-09V-D
PH-03V-D
PH-05V-D
PH-04V-D
PH-06V-D
PH-08V-D
PH-12V-D
PH-07V-D

SM 011

SUB-POWER BOARD CIRCUIT

HITACHI


SD/MMC Card I / F
molex
JCC1
54794-0918
DATA2
DATA3
COMMAND
3.3V
CLOCK
GND
DATA0
DATA1
DET
WP
COMMON
ICC1
MAX4790EUS
IN
ON
OUT1
GND
P# CK52581R
High active
D+3.3V
CC02 0.1/16
CC04 0.1/16
CC05 0.1/16
RC12 56K
GND1
ICC2
SN74LVC1G17DCK
CC06 0.1/16
RC21 100
RC22 0
CC07 18p-C
RC27 0
RC20 0
RC23 100K
RC10 47
QC01
RC11 82K
3216
RC14
RC08
RC09
RC24 47
CC01 0.001
CC03 0.001
RC15 10K
RC06
SD_PWL
SD_DET
SD_DAT2
SD_DAT3
SD_CMD
SD_CLK
SD_DAT0
SD_DAT1
DET_P
WP_N
ICC3
SN74LVC125APW
1OE
1A
1Y
2OE
2A
2Y
GND
VCC
4OE
4A
4Y
3OE
3A
3Y
CC09 0.1/16
RC30 0
RC31 0
RC28 0
RC29 0
RC25 180
RC16 180
RC13 180
RC26 180
RC18 180
RC17 180
CC08 33p-C
TPC_DET
TPC_DAT0
TPC_CLK
TPC_CS
TPC_CMD
PCS1
501331-14V
GND
D+3.3V
to Bridge Media UNIT
RC07 0
PCS2
PH-04V
ADKEY1
ADKEY2
ADKEY3
to FC PWB
GND2
MENU/SELECT
INPUT_SEL
VOL_DOWN
VOL_UP
CH_DOWN
CH_UP
POWER_ON
SCC6 SKHMPSE010
SCC5 SKHMPSE010
SCC1 SKHMPSE010
SCC2 SKHMPSE010
SCC3 SKHMPSE010
SCC4 SKHMPSE010
SCC7 SKHMPSE010
RC01 0
RC02 2.7K
RC03 1.8K
RC04 1.0K
RC05 820
RC19 220

▨ : Not m't

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CONTROL BOARD CIRCUIT

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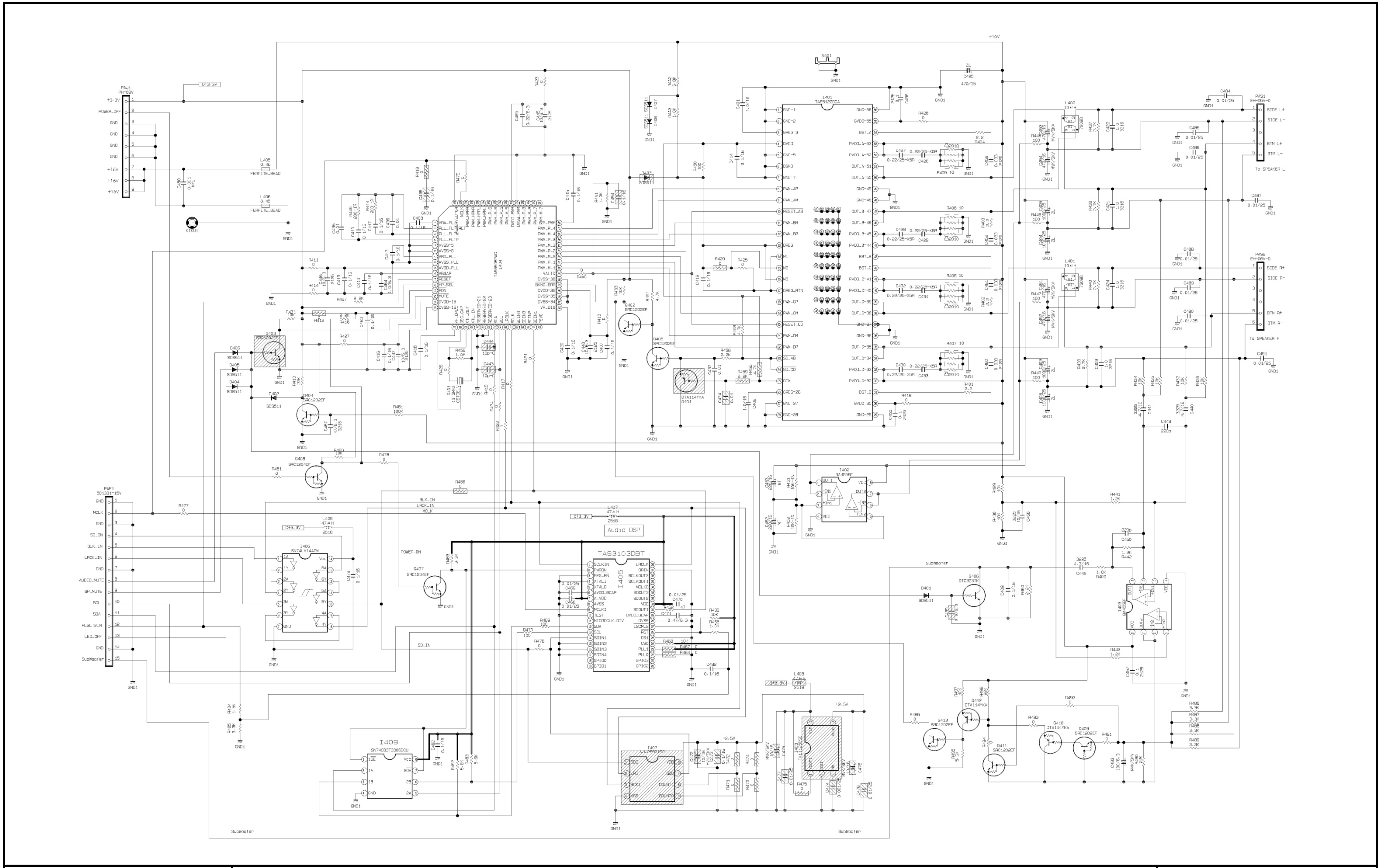
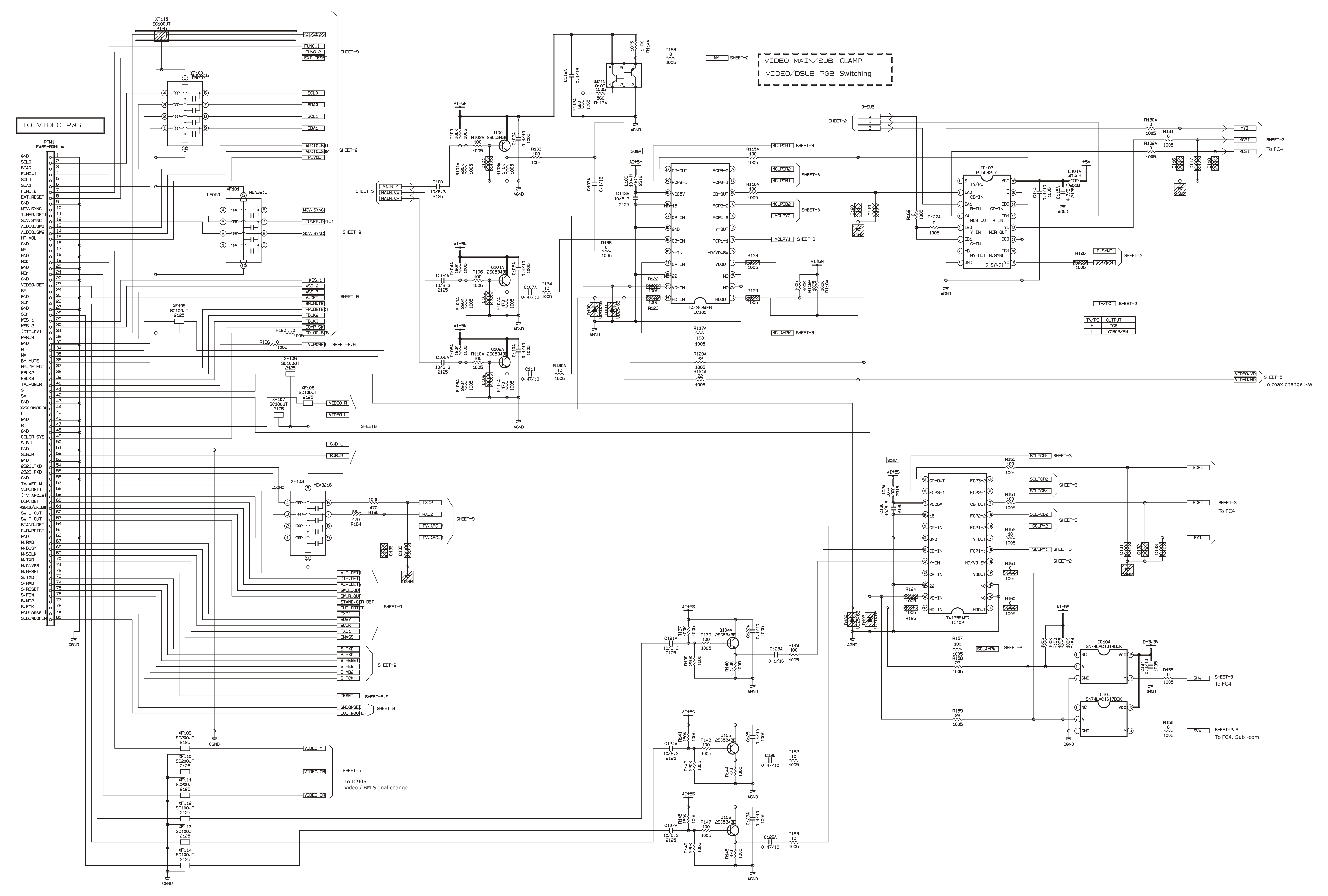

PAJ1
PH-09V
+3.3V
POWER_OFF
GND
GND
GND
GND
+16V
+16V
+16V
D+3.3V
L405
FERRITE_BEAD
L406
FERRITE_BEAD
KIKU1
GND1
+16V
N401
I404
TAS5508PAG
I401
TAS5122DCA
C425
470/35
PAS1
EH-06V-D
SIDE L+
SIDE L-
BTM L+
BTM L-
To SPEAKER L
PAS2
EH-06V-D
SIDE R+
SIDE R-
BTM R+
BTM R-
To SPEAKER R
L402
L401
I402
BA4558F
PAF1
501331-15V
GND
MCLK
GND
SD_IN
BLK_IN
LRCK_IN
GND
AUDIO_MUTE
SP_MUTE
SCL
SDA
RESET2_N
LED_OFF
GND
Subwoofer
BLK_IN
LRCK_IN
MCLK
SD_IN
POWER_ON
I406
SN74LV14APW
L409
TAS3103DBT
I405
Audio DSP
L407
I409
SN74CBT3306DCU
I407
L408
+2.5V
I408
Subwoofer
I403
BA4558F
Q401
DTA114YKA
Q402
SRC1202EF
Q403
SRC1202EF
Q404
SRC1202EF
Q405
SRC1202EF
Q406
DTC323TK
Q407
SRC1204EF
Q408
SRC1204EF
Q409
SRC1202EF
Q410
DTA114YKA
Q411
SRC1202EF
Q412
DTA114YKA
Q413
SRC1202EF

SM 011

SOUND BOARD CIRCUIT

HITACHI


TO VIDEO PWB
PFM1
FA6S-80HLow
VIDEO MAIN/SUB CLAMP
VIDEO/DSUB-RGB Switching
XF115 SC100JT 2125
XF100 MEA3216
XF101 MEA3216
XF103 MEA3216
FUNC_1
FUNC_2
EXT_RESET
SCL0
SDA0
SCL1
SDA1
AUDIO_SW1
AUDIO_SW2
HP_VOL
MCV_SYNC
TUNER_DET_1
SCV_SYNC
WSS_1
WSS_2
WSS_3
V_DET
BM_MUTE
HP_DETECT
FBLK2
FBLK3
COMP_SW
COLOR_SYS
TV_POWER
VIDEO_R
VIDEO_L
SUB_L
SUB_R
TXD2
RXD2
TV_AFC_M
TV_AFC_S
V_P_DET1
DIP_DET
V_P_DET2
SW_L_OUT
SW_R_OUT
STAND_CIR_DET
CUR_PRTCT
RXD1
BUSY
SCLK
TXD1
CNVSS
S_TXD
S_RXD
S_RESET
S_FEW
S_MD2
S_FCK
RESET
GNDONSEI
SUB_WOOFER
VIDEO_Y
VIDEO_CB
VIDEO_CR
To IC905
Video / BM Signal change
MAIN_Y
MAIN_CB
MAIN_CR
SHEET-2
SHEET-3
SHEET-5
SHEET-8
SHEET-9
SHEET-8.9
SHEET-2.3
IC100 TA1358AFG
IC102 TA1358AFG
IC103 PI5C3257L
IC104 SN74LVC1G14DCK
IC105 SN74LVC1G17DCK
Q100 2SC5343E
Q101A 2SC5343E
Q102A 2SC5343E
Q104A 2SC5343E
Q105 2SC5343E
Q106 2SC5343E
Q103 UMZ1N
D-SUB
MY
MYI
MCRI
MCBI
To FC4
MCLPCR1
MCLPCR2
MCLPCB1
MCLPCB2
MCLPY1
MCLPY2
MCLAMPW
SCLPCR1
SCLPCR2
SCLPCB1
SCLPCB2
SCLPY1
SCLPY2
SCLAMPW
SCRI
SCBI
SYI
SHW
SVW
To FC4, Sub -com
G_SYNC
TV/PC
VIDEO_VD
VIDEO_HD
To coax change SW
TV/PC | OUTPUT
H | RGB
L | YCBCR/BM
30mA
AI+5M
AI+5S
+5V
DH3.3V
AGND
CGND
DGND

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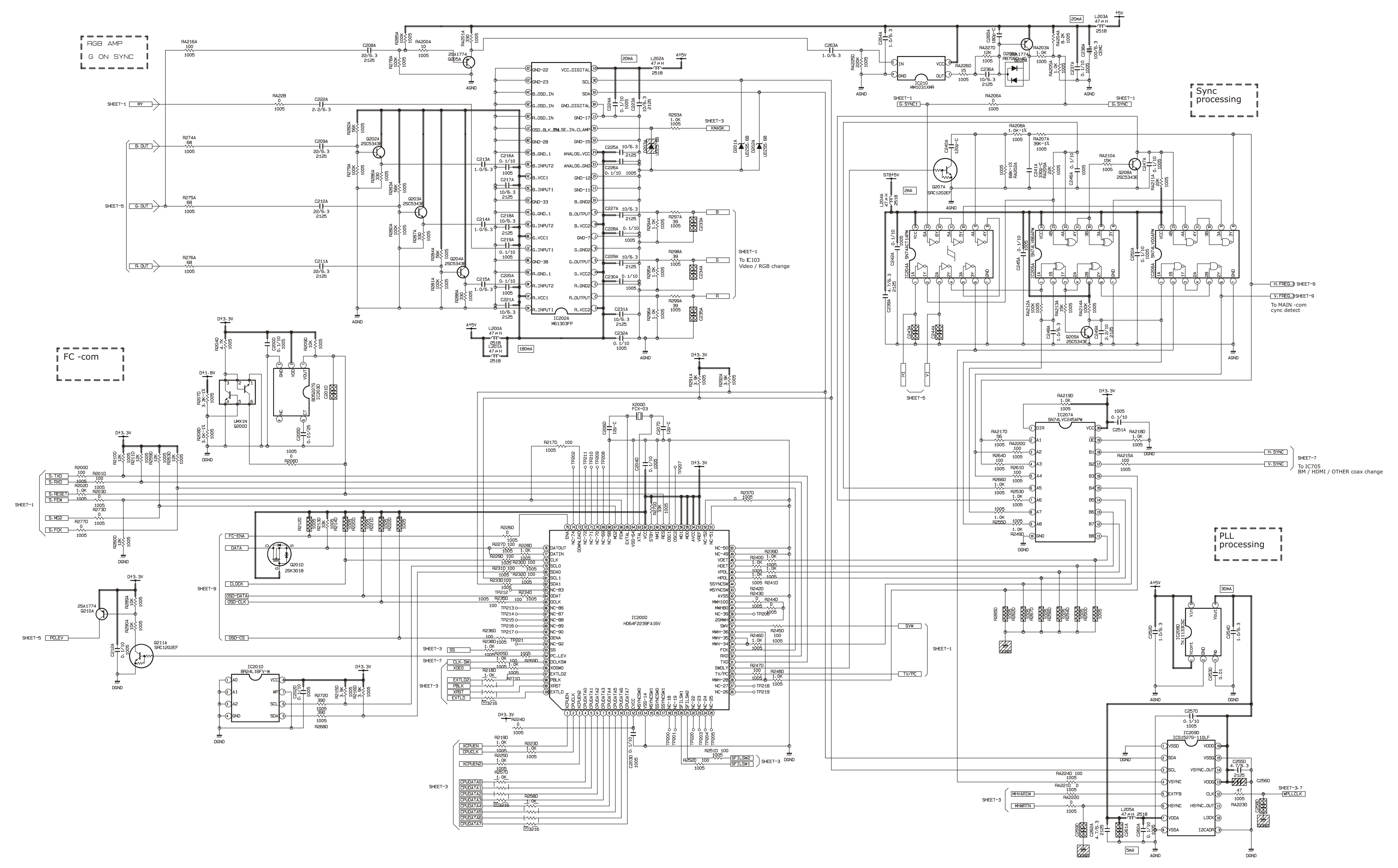
FC BOARD CIRCUIT SHEET 1

HITACHI


RGB AMP
G ON SYNC
Sync processing
FC -com
PLL processing
IC202A M61303FP
IC210 MM1031XMR
IC200D HD64F2239FA16V
IC201D BR24L16FV-W
IC203D BD5227G
G200D UMX1N
G201D 2SK3018
IC207A SN74LVC245APW
IC208D TK11133CSC
IC209D ICS1527G-110LF
SHEET-1
SHEET-3
SHEET-5
SHEET-7
SHEET-9
To IC103 Video / RGB change
To MAIN -com cync detect
To IC705 BM / HDMI / OTHER coax change
H.SYNC
V.SYNC
H.FREQ.
V.FREQ.
KMASK
G.SYNC1
G.SYNC
B.OUT
G.OUT
R.OUT
MY
PCLEV
S.TXD
S.RXD
S.RESET
S.FEW
S.MD2
S.FCK
FC-ENA
DATA
CLOCK
OSD-DATA
OSD-CLK
OSD-CS
SS
CLK.SW
XOED
EXTLD2
PBLK
XRST
EXTLD
SVW
TV/PC
XCPUEN
CPUCLK
XCPUEN2
CPUDATA0
CPUDATA1
CPUDATA2
CPUDATA3
CPUDATA4
CPUDATA5
CPUDATA6
CPUDATA7
SFILSW2
SFILSW1
MHVARIW
MHWRTN
WPLLCLK
+5V
D+3.3V
D+1.8V
STB+5V
AGND
DGND

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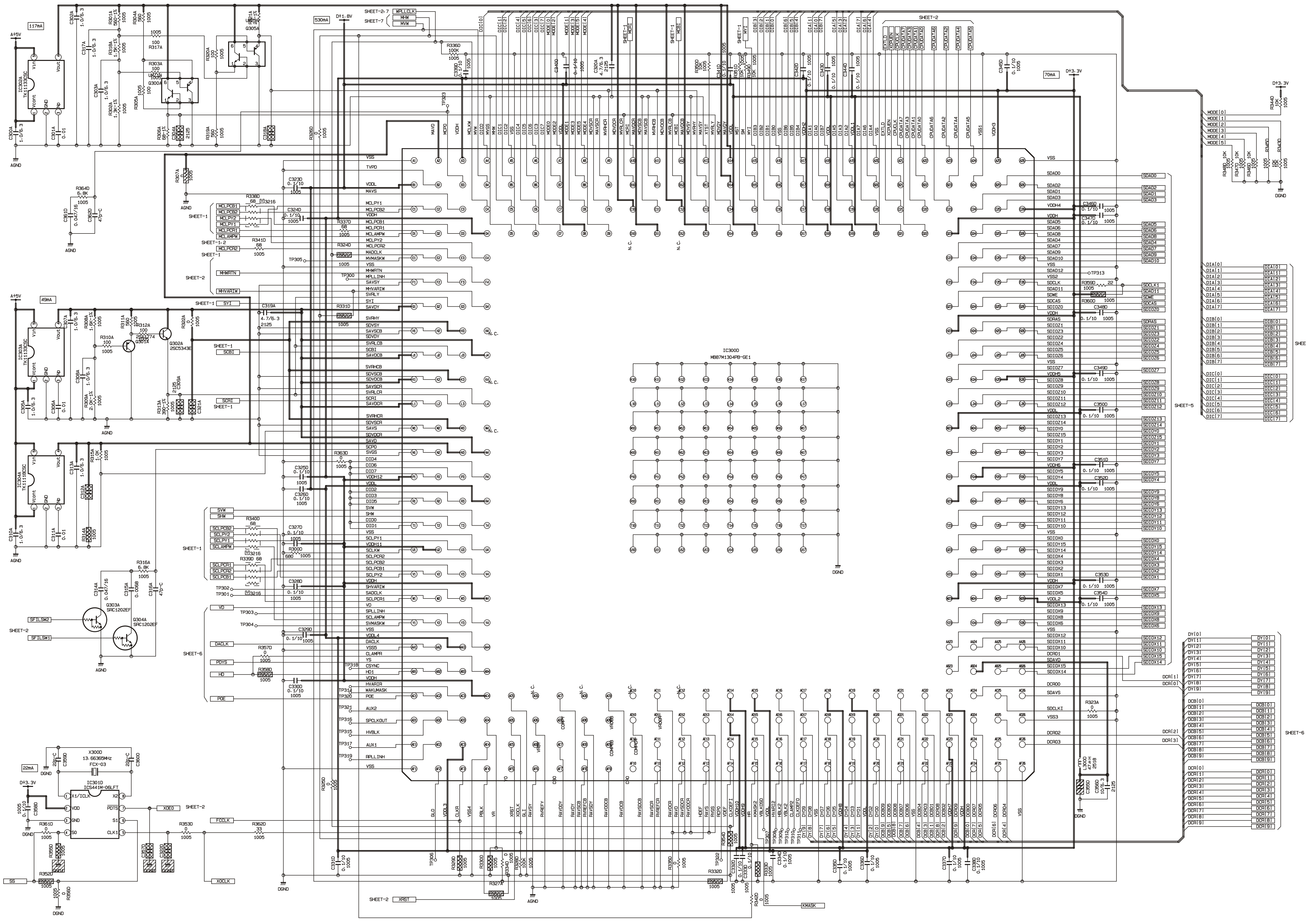
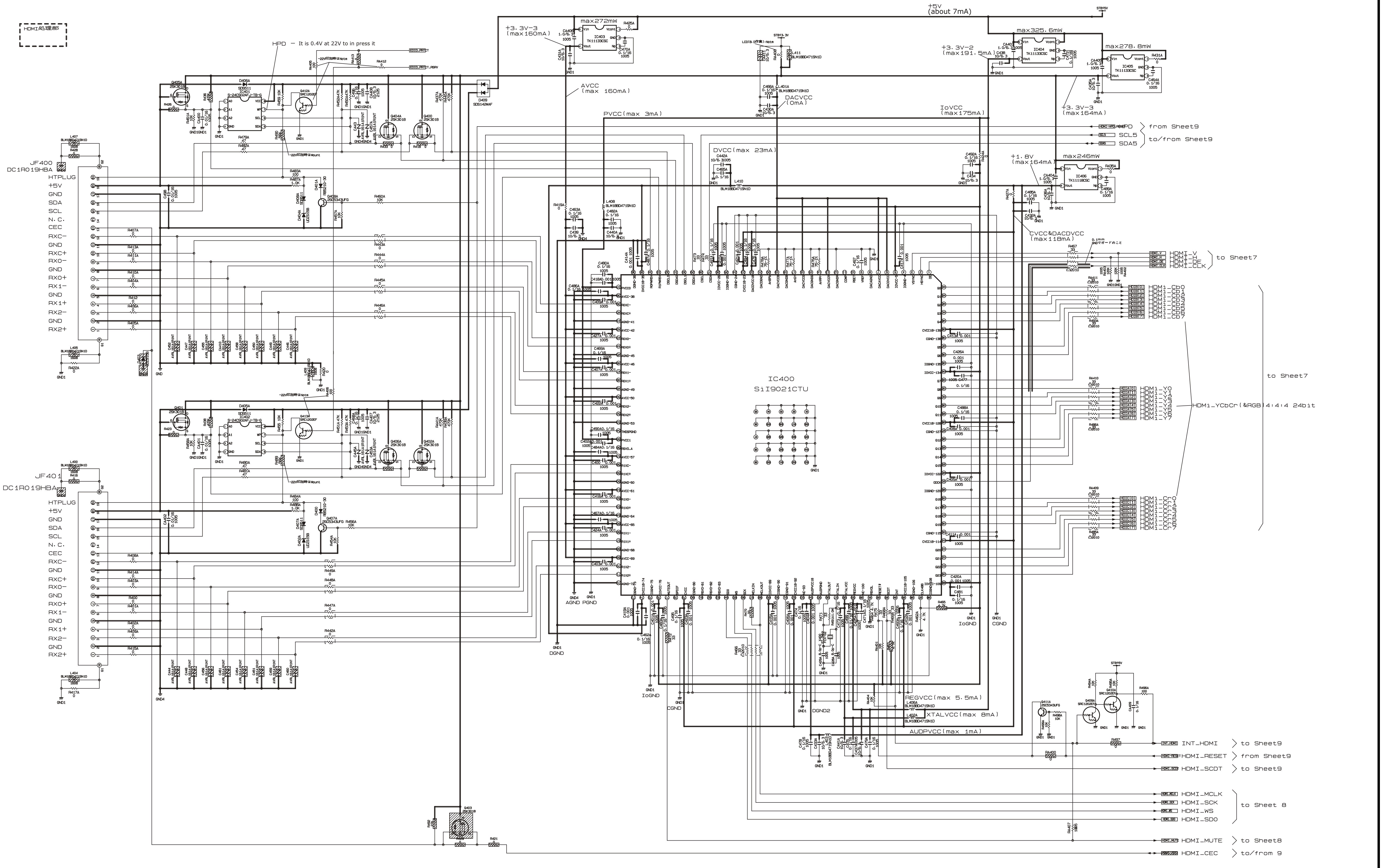
FC BOARD CIRCUIT SHEET 2

HITACHI


A+5V
117mA
IC302A
TK11133CSC
Vin
Vout
Vcont
GND
Nd
C300A 1.0/6.3
C301A 0.01
C302A 1.0/6.3
C317A 1.0/6.3
C303A 1.0/6.3
R301A 560-1%
R318A 1.5K-1%
R302A 1.3K-1%
R304A 560
R317A 100
R303A 100
Q300A
Q305A
Q301A
R305A 100
R306A 68-1%
C304A 2125
R319A 560
R320A 100
C318A
R364D 6.8K 1005
C361D 0.047/16
C362D 47p-C
AGND
49mA
IC303A
TK11133CSC
C305A 1.0/6.3
C306A 0.01
C307A 1.0/6.3
C308A 1.0/6.3
R308A 1.8K-1%
R309A 2.0K-1%
R310A 100 1005
R311A 560 1005
R312A 100
Q302A
2SC5343E
R322A 1005
R313A 390-1%
C309A 2125
C321A
IC304A
TK11118CSC
C310A 1.0/6.3
C311A 0.01
C313A 1.0/6.3
R315A 12K 1005
C312A
R314A 1005
R316A 6.8K 1005
C314A 0.047/16
C315A 0.0068
C316A 47p-C
Q303A
SRC1202EF
Q304A
SRC1202EF
SFILSW2
SFILSW1
SHEET-1
SHEET-1-2
SHEET-2
SHEET-5
SHEET-6
SHEET-6-7
SHEET-7
SHEET-2-7
MPLLCLK
MHW
MVW
530mA
D+1.8V
70mA
D+3.3V
IC300D
MB87M1304PB-GE1
N.C.
X300D
13.66365MHz
FCX-03
IC301D
ICS441M-05LFT
22mA
X1/ICLK
X2
VDD
PDTS
S1
GND
S0
CLK1
XDEO
FCCLK
R362D 33 1005
XOCLK
SS
DGND
XRST
XMASK
L300D 47μH
C359D 10/6.3 2125
SDAD0
SDAD1
SDAD2
SDAD3
DIA[0]
DIA[7]
DIB[0]
DIB[7]
DIC[0]
DIC[7]
DY[0]
DY[9]
DCB[0]
DCB[9]
DCR[0]
DCR[9]
MODE[0]
MODE[5]

FC BOARD CIRCUIT SHEET 3


HDMI処理部
HPD − It is 0.4V at 22V to in press it
+5V (about 7mA)
max272mW
+3.3V-3 (max160mA)
IC403 TK11133CSC
max325.6mW
+3.3V-2 (max191.5mA)
IC404 TK11133CSC
max278.8mW
IC405 TK11133CSC
+3.3V-3 (max164mA)
AVCC (max 160mA)
DACVCC (0mA)
PVCC (max 3mA)
IoVCC (max175mA)
DVCC (max 23mA)
+1.8V (max164mA)
max246mW
IC406 TK11118CSC
CVCC&DACDVCC (max118mA)
HPD from Sheet9
SCL5 to/from Sheet9
SDA5
HDMI_V
HDMI_H
HDMI_DE
HDMI_CLK
to Sheet7
HDMI_CbCr0
HDMI_CbCr1
HDMI_CbCr2
HDMI_CbCr3
HDMI_CbCr4
HDMI_CbCr5
HDMI_CbCr6
HDMI_CbCr7
to Sheet7
HDMI_Y0
HDMI_Y1
HDMI_Y2
HDMI_Y3
HDMI_Y4
HDMI_Y5
HDMI_Y6
HDMI_Y7
HDMI_YCbCr(&RGB)4:4:4 24bit
HDMI_Cr0
HDMI_Cr1
HDMI_Cr2
HDMI_Cr3
HDMI_Cr4
HDMI_Cr5
HDMI_Cr6
HDMI_Cr7
IC400
SiI9021CTU
JF400
DC1R019HBA
JF401
DC1R019HBA
HTPLUG
+5V
GND
SDA
SCL
N.C.
CEC
RXC−
GND
RXC+
RXO−
GND
RXO+
RX1−
GND
RX1+
RX2−
GND
RX2+
IC401 S-24CS02AFJ-TB-G
IC402 S-24CS02AFJ-TB-G
D409 SD5142MAF
G403 2SK3018
AGND PGND
DGND
IoGND
CGND
DGND2
REGVCC(max 5.5mA)
XTALVCC(max 8mA)
AUDPVCC(max 1mA)
INT_HDMI to Sheet9
HDMI_RESET from Sheet9
HDMI_SCDT to Sheet9
HDMI_MCLK
HDMI_SCK
HDMI_WS
HDMI_SD0
to Sheet 8
HDMI_MUTE to Sheet8
HDMI_CEC to/from 9

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FC BOARD CIRCUIT SHEET 4

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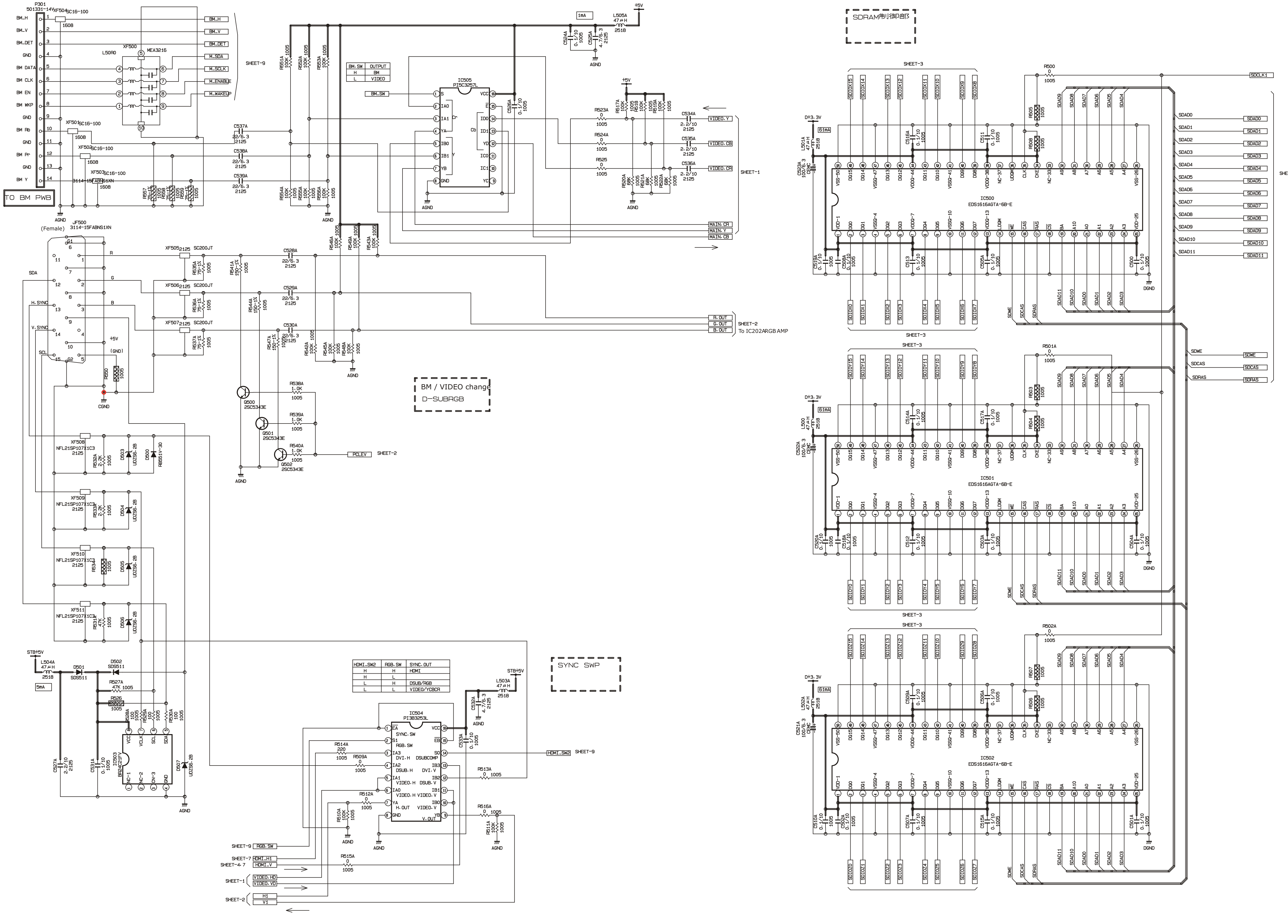
P301
501331-14V
TO BM PWB
BM_H
BM_V
BM_DET
BM DATA
BM CLK
BM EN
BM WKP
BM Rb
BM Pr
BM Y
GND
MEA3216
L50R0
SHEET-9
M_SDA
M_SCLK
M_ENABLE
M_WAKEUP
IC505
PI5C3257L
BM_SW
VIDEO.Y
VIDEO.CB
VIDEO.CR
SHEET-1
MAIN.CR
MAIN.Y
MAIN.CB
+5V
L505A
47μH
AGND
JF500
3114-15FABNS1XN
(Female)
SDA
H.SYNC
V.SYNC
SCL
CGND
R.OUT
G.OUT
B.OUT
SHEET-2
To IC202ARGB AMP
BM / VIDEO change
D-SUBRGB
Q500
2SC5343E
Q501
2SC5343E
Q502
2SC5343E
PCLEV
SHEET-2
XF508
XF509
XF510
XF511
NFL21SP107X1C3
STB+5V
L504A
D501
SDS511
D502
SDS511
IC503
BR24C21FV
SYNC SWP
IC504
PI3B3253L
SYNC.SW
RGB.SW
DVI.H
DSUB.H
VIDEO.H
H.OUT
DSUBCOMP
DVI.V
DSUB.V
VIDEO.V
V.OUT
L503A
HDMI_SW2
SHEET-9
RGB.SW
SHEET-7
HDMI_H
SHEET-4-7
HDMI_V
SHEET-1
VIDEO.HD
VIDEO.VD
SHEET-2
HI
VI
SDRAM
SHEET-3
R500
SDCLK1
D+3.3V
IC500
EDS1616AGTA-6B-E
IC501
EDS1616AGTA-6B-E
IC502
EDS1616AGTA-6B-E
DGND
SDAD0
SDAD1
SDAD2
SDAD3
SDAD4
SDAD5
SDAD6
SDAD7
SDAD8
SDAD9
SDAD10
SDAD11
SDWE
SDCAS
SDRAS
R501A
R502A

BM.SW	OUTPUT
H	BM
L	VIDEO

HDMI_SW2	RGB.SW	SYNC.OUT
H	H	HDMI
H	L	
L	H	DSUB/RGB
L	L	VIDEO/YCBCR

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FC BOARD CIRCUIT SHEET 5

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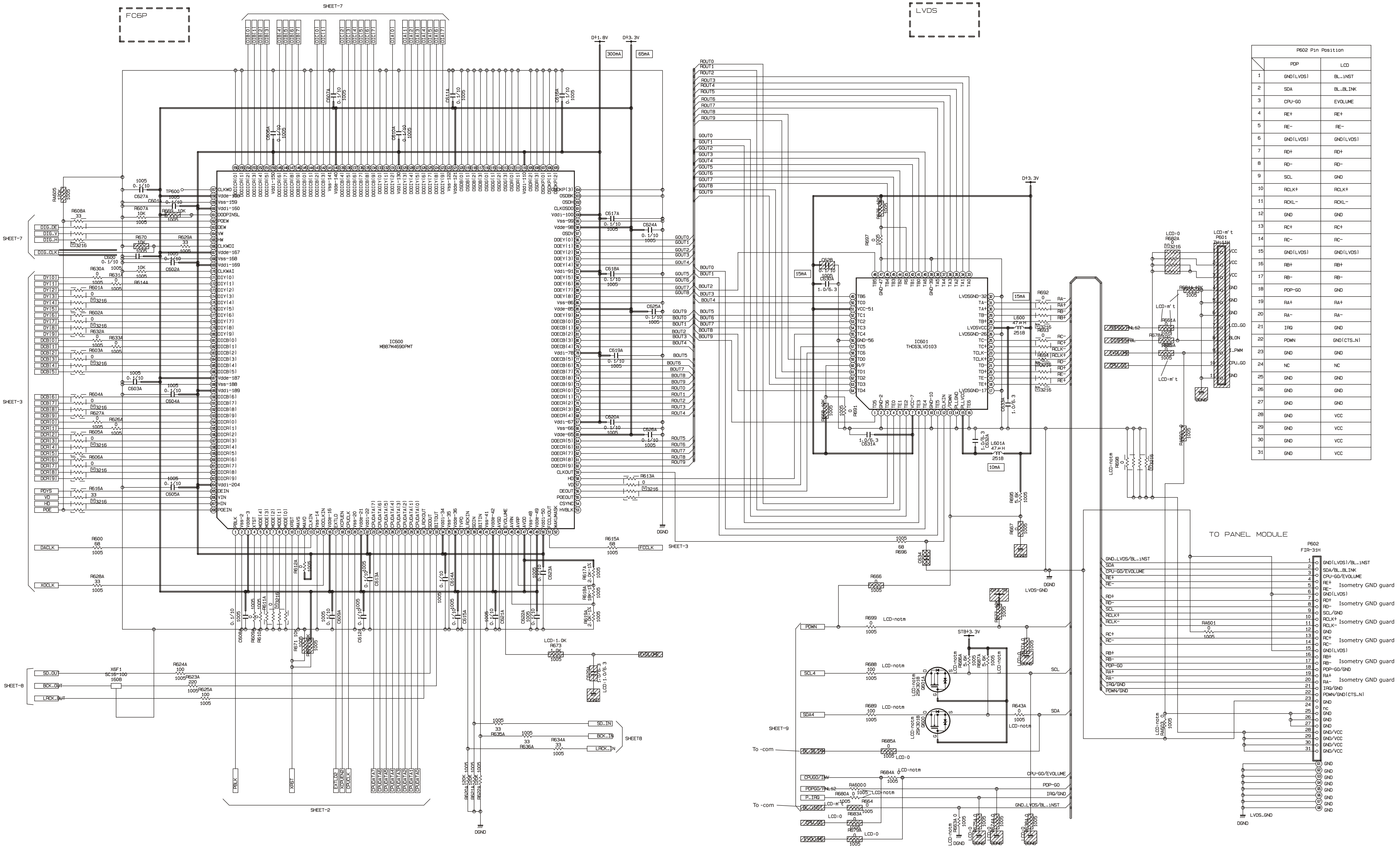
FC6P
LVDS
SHEET-7
SHEET-3
SHEET-2
SHEET-8
SHEET8
SHEET-9
IC600
M887M4690PMT
IC601
THC63LVD103
D+1.8V
D+3.3V
300mA
65mA
15mA
10mA
DGND
LVDS-GND
LVDS_GND
STB+3.3V
P601
P602
FIR-31H
TO PANEL MODULE
Isometry GND guard
DACLK
FCCLK
XOCLK
SD_OUT
BCK_OUT
LRCK_OUT
SD_IN
BCK_IN
LRCK_IN
PDWN
SCL4
SDA4
SCL
SDA
CPU-GO/EVOLUME
PDP-GO
IRQ/GND
GND_LVDS/BL_iNST
To -com
L600 47μH
L601A 47μH
2SK3018
X6F1

P602 Pin Position		
	PDP	LCD
1	GND(LVDS)	BL_iNST
2	SDA	BL_BLINK
3	CPU-GO	EVOLUME
4	RE+	RE+
5	RE-	RE-
6	GND(LVDS)	GND(LVDS)
7	RD+	RD+
8	RD-	RD-
9	SCL	GND
10	RCLK+	RCLK+
11	RCKL-	RCKL-
12	GND	GND
13	RC+	RC+
14	RC-	RC-
15	GND(LVDS)	GND(LVDS)
16	RB+	RB+
17	RB-	RB-
18	PDP-GO	GND
19	RA+	RA+
20	RA-	RA-
21	IRQ	GND
22	PDWN	GND(CTS_N)
23	GND	GND
24	NC	NC
25	GND	GND
26	GND	GND
27	GND	GND
28	GND	VCC
29	GND	VCC
30	GND	VCC
31	GND	VCC

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FC BOARD CIRCUIT SHEET 6

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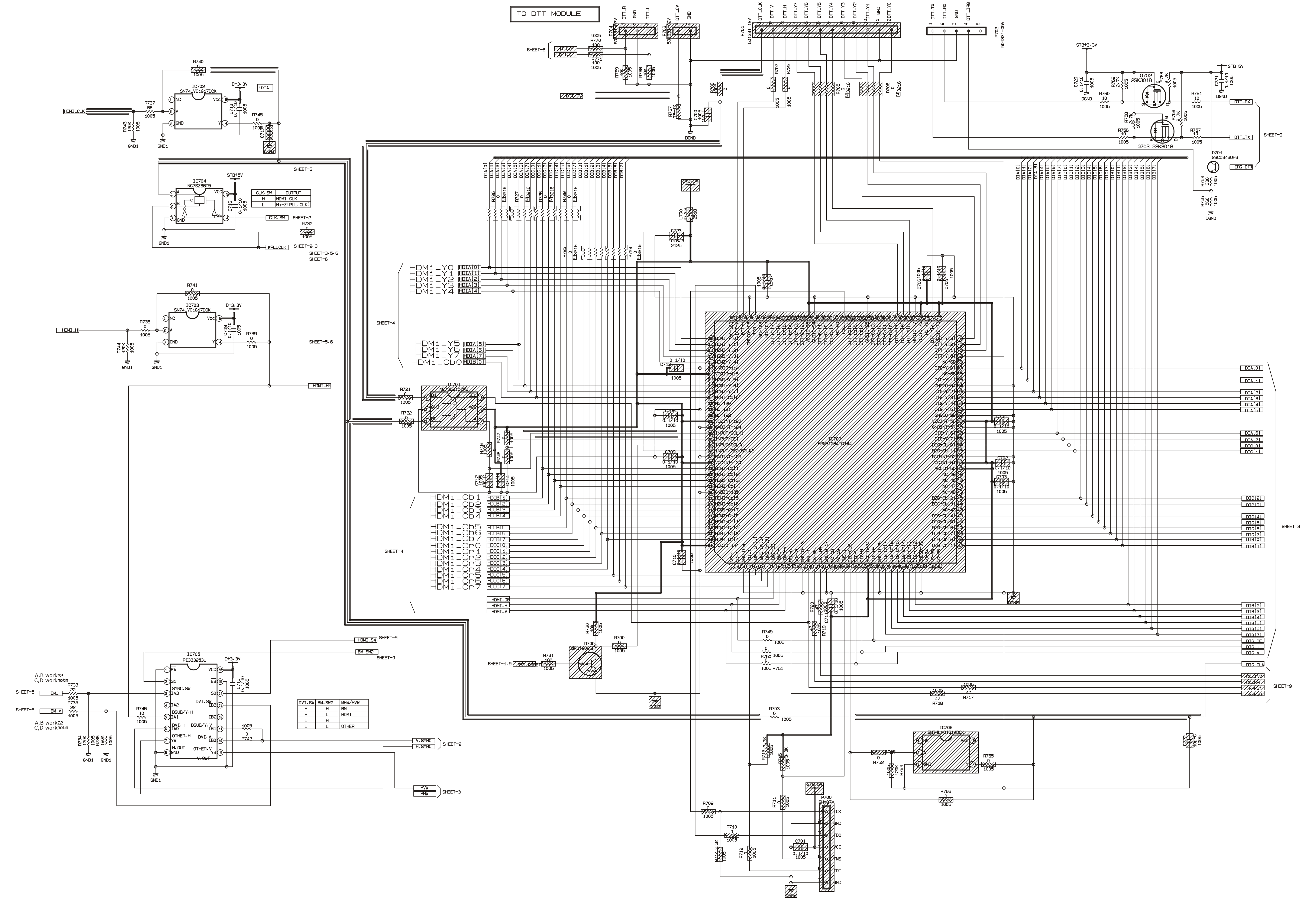
TO DTT MODULE
SHEET-8
SHEET-6
SHEET-2
SHEET-2, 3
SHEET-3, 5, 6
SHEET-6
SHEET-4
SHEET-5, 6
SHEET-4
SHEET-9
SHEET-3
SHEET-9
SHEET-1, 9
SHEET-5
SHEET-2
SHEET-3
IC702
SN74LVC1G17DCK
IC703
SN74LVC1G17DCK
IC704
NC7SZ66P5
IC701
NC7SZ157P6
IC700
EPM1270T144
IC705
PI3B3253L
IC706
P700
P701
P702
P703
P704
Q700
Q701
2SC5343UFG
Q702
2SK3018
Q703
2SK3018
L700
HDMI_CLK
HDMI_H
HDMI_V
CLK_SW
WPLLCLK
D+3.3V
STB+5V
STB+3.3V
GND1
DGND
10mA
DTT_RX
DTT_TX
IRQ_DTT
DTT_CLK
DIG_CLK
DIG_H
DIG_V
H.SYNC
V.SYNC
MVW
MHW
HDMI_SW
BM_SW2
BM_H
BM_V
A,B work22
C,D worknotm
CLK.SW | OUTPUT
H | HDMI.CLK
L | Hi-Z(PLL.CLK)
DVI.SW | BM_SW2 | MHW/MVW
H | H | BM
H | L | HDMI
L | H |
L | L | OTHER
HDMi_Y0
HDMi_Y1
HDMi_Y2
HDMi_Y3
HDMi_Y4
HDMi_Y5
HDMi_Y6
HDMi_Y7
HDMi_Cb0
HDMi_Cb1
HDMi_Cb2
HDMi_Cb3
HDMi_Cb4
HDMi_Cb5
HDMi_Cb6
HDMi_Cb7
HDMi_Cr0
HDMi_Cr1
HDMi_Cr2
HDMi_Cr3
HDMi_Cr4
HDMi_Cr5
HDMi_Cr6
HDMi_Cr7
DIA[0]
DIA[1]
DIA[2]
DIA[3]
DIA[4]
DIA[5]
DIA[6]
DIA[7]
DIC[0]
DIC[1]
DIC[2]
DIC[3]
DIC[4]
DIC[5]
DIC[6]
DIC[7]
DIB[0]
DIB[1]
DIB[2]
DIB[3]
DIB[4]
DIB[5]
DIB[6]
DIB[7]
TCK
TDO
VCC
TMS
TDI
GND

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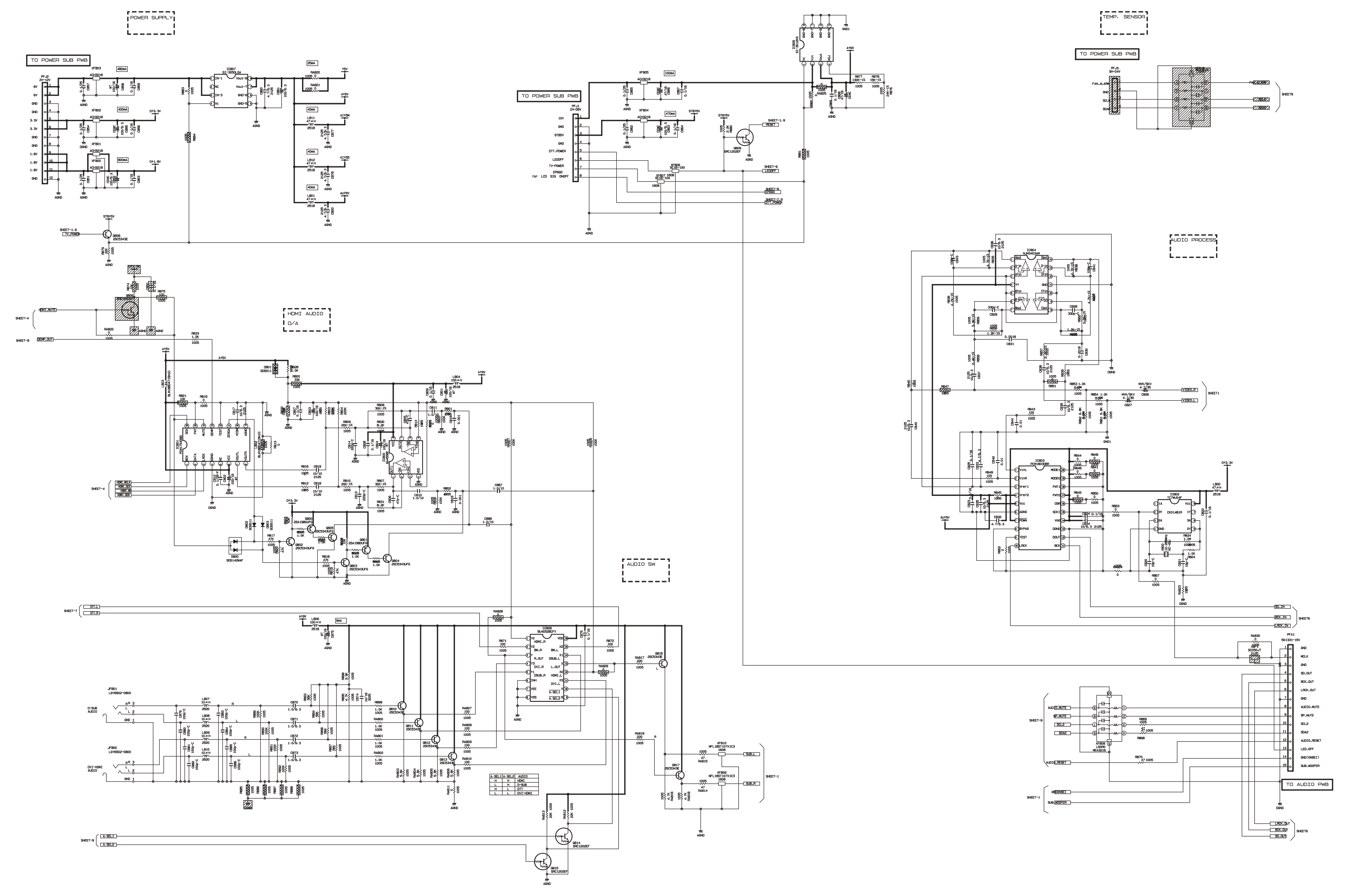
FC BOARD CIRCUIT SHEET 7

HITACHI


POWER SUPPLY
TO POWER SUB PWB
TO POWER SUB PWB
TEMP. SENSOR
TO POWER SUB PWB
AUDIO PROCESS
HDMI AUDIO D/A
AUDIO SW
TO AUDIO PWB
D-SUB AUDIO
DVI-HDMI AUDIO
SHEET-1
SHEET-4
SHEET-6
SHEET-7
SHEET-9

A.SEL1	A.SEL2	AUDIO
H	H	HDMI
L	H	D-SUB
H	L	DTT
L	L	DVI-HDMI

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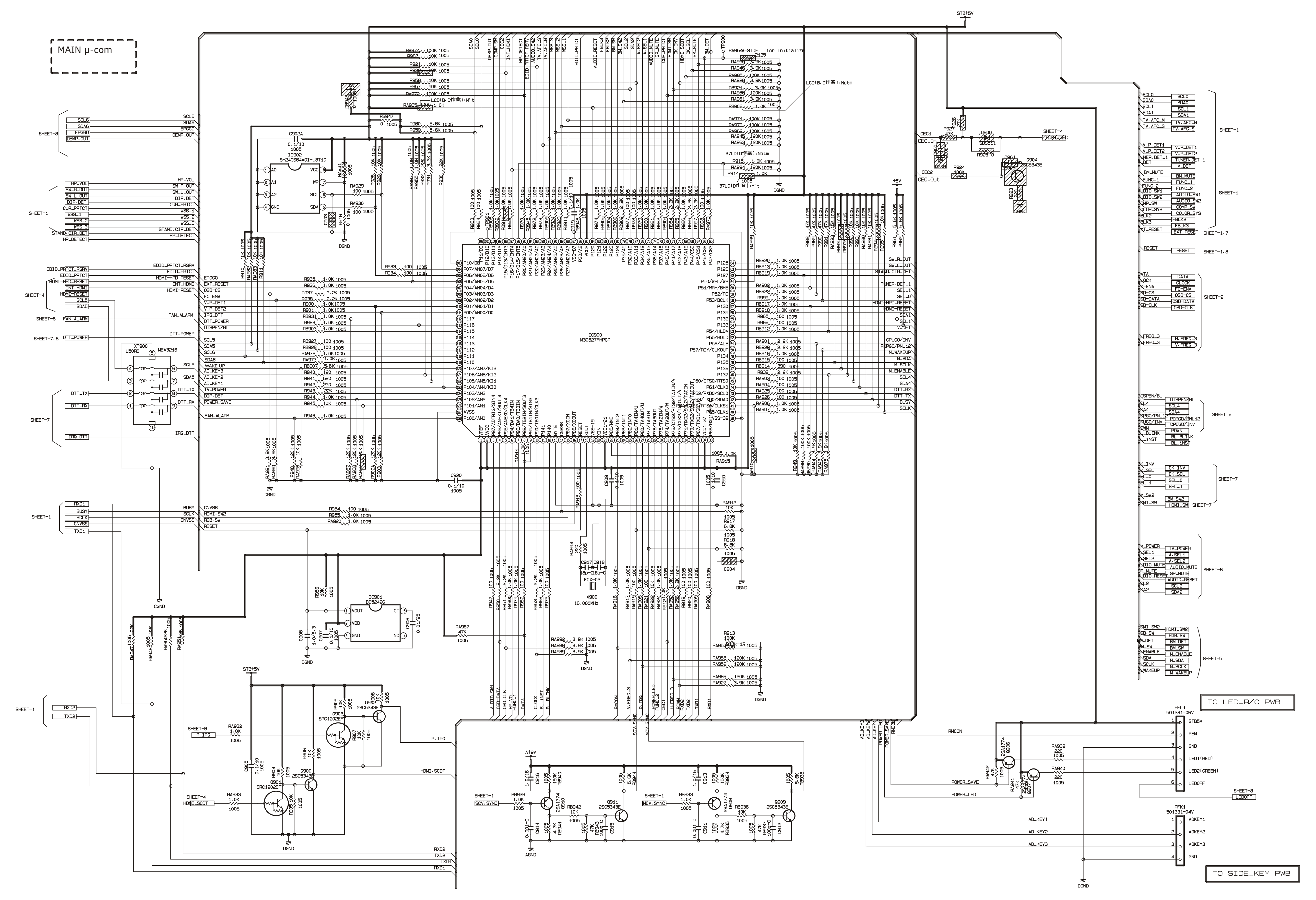
FC BOARD CIRCUIT SHEET 8

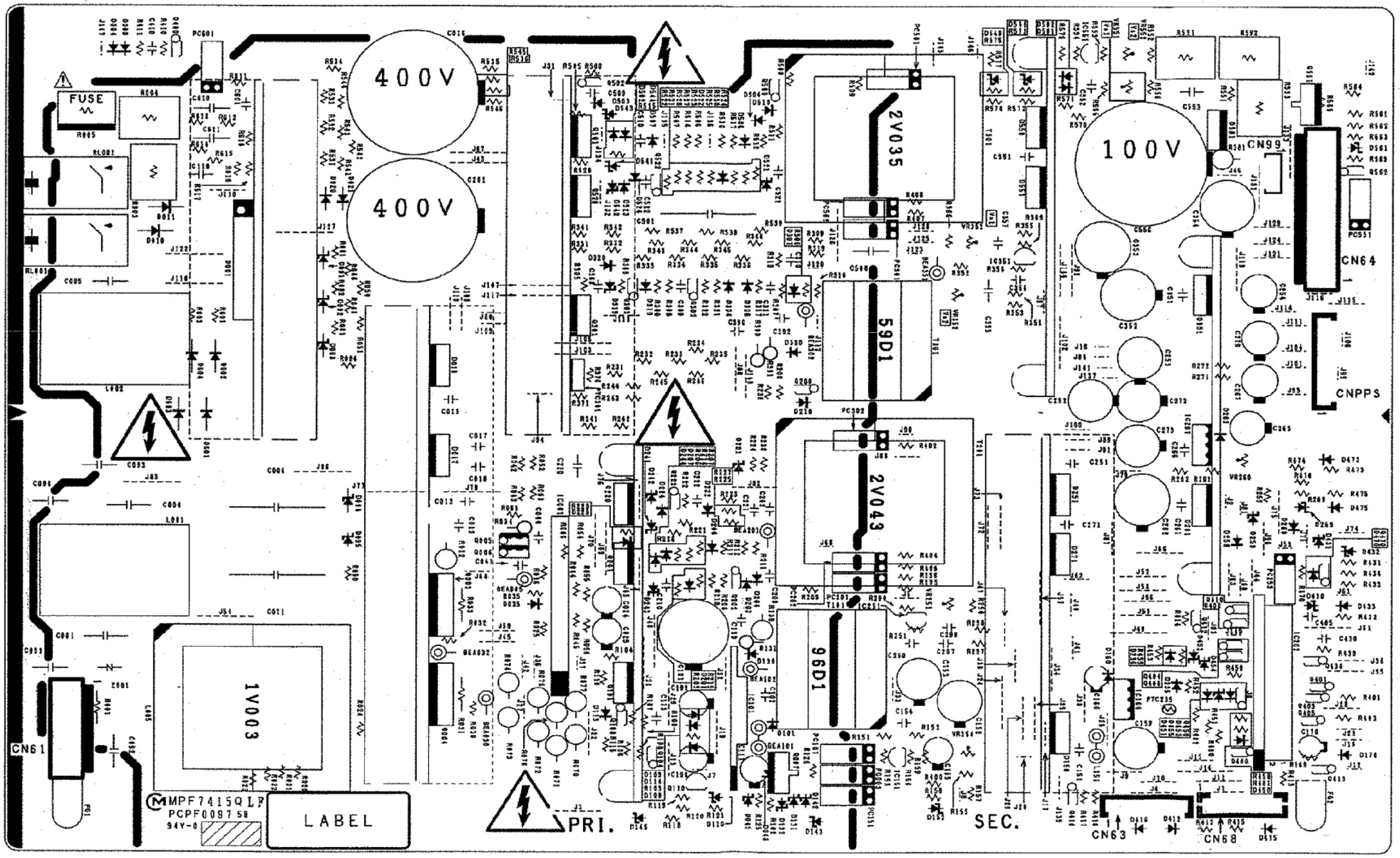
HITACHI


MAIN µ-com
IC900
M30627FHPGP
IC902
S-24CS64A0I-J8T1G
IC901
BD5242G
XF900
MEA3216
X900
16.000MHz
STB+5V
+5V
A+9V
DGND
AGND
CGND
SHEET-1
SHEET-2
SHEET-4
SHEET-5
SHEET-6
SHEET-7
SHEET-8
SHEET-1,7
SHEET-1,8
SHEET-7,8
Q900 2SC5343E
Q901 SRC1202EF
Q902 2SC5343E
Q903 SRC1202EF
Q904 2SC5343E
Q905 2SA1774
Q908 2SA1774
Q909 2SC5343E
Q910 2SA1774
Q911 2SC5343E
D900
CEC1
CEC2
CEC_In
CEC_Out
PFL1
501331-06V
STB5V
REM
GND
LED1(RED)
LED2(GREEN)
LEDOFF
TO LED_R/C PWB
PFK1
501331-04V
ADKEY1
ADKEY2
ADKEY3
TO SIDE_KEY PWB
RMCON
POWER_SAVE
POWER_LED
AD_KEY1
AD_KEY2
AD_KEY3
SCV.SYNC
MCV.SYNC
P_IRQ
HDMI_SCDT
RXD1
RXD2
TXD1
TXD2
BUSY
SCLK
CNVSS
RA954-SIDE for Initialize
LCD(B-D作業)：Notm
37LD(D作業)：Notm

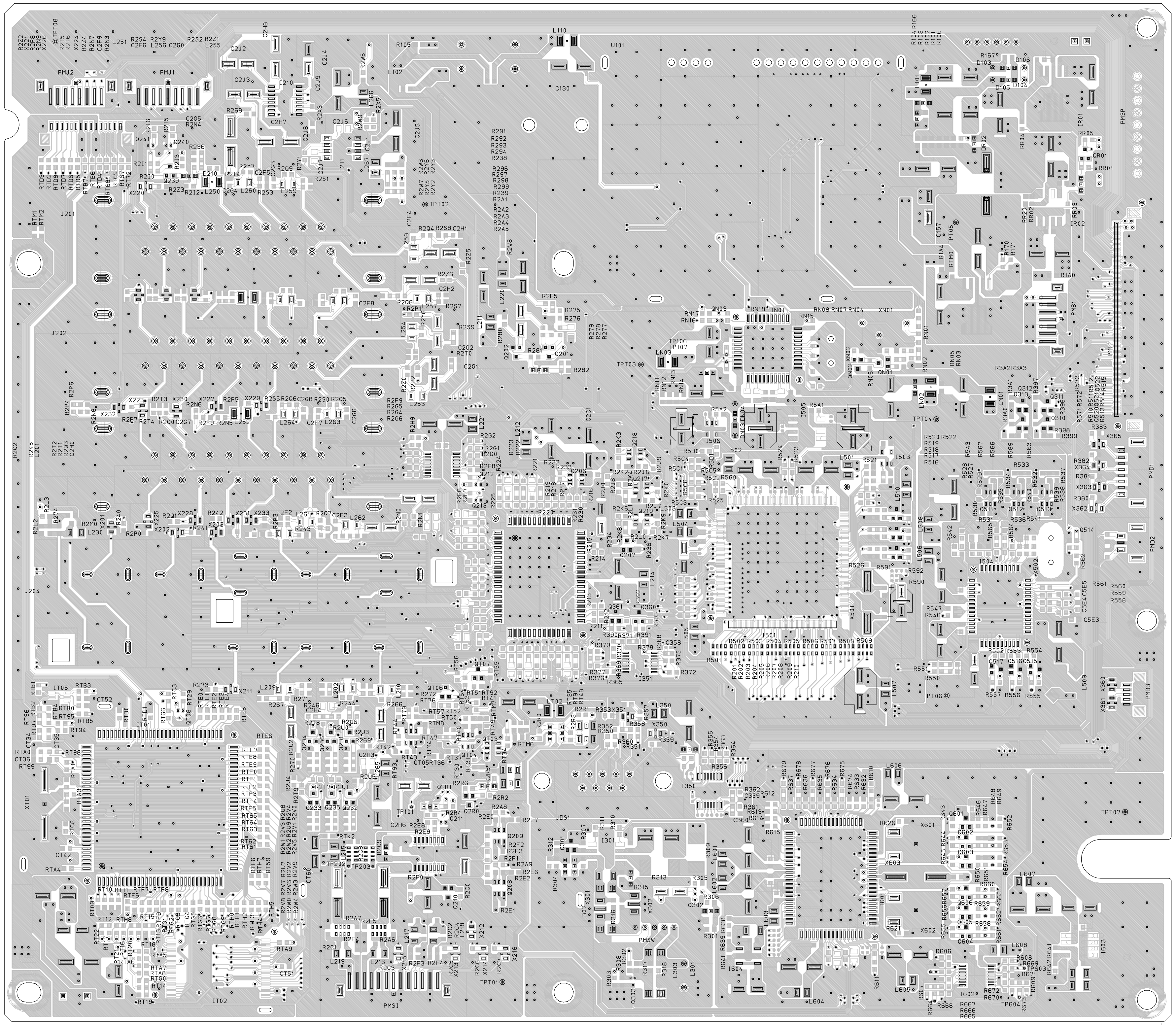
SM 011

FC BOARD CIRCUIT SHEET 9

HITACHI


FUSE
400V
400V
100V
2V035
59D1
2V043
96D1
1V003
CN61
CN63
CN68
CN64
CN99
CNPPS
MPF7415QLF
PCPF00975B
94V-0
LABEL
PRI.
SEC.

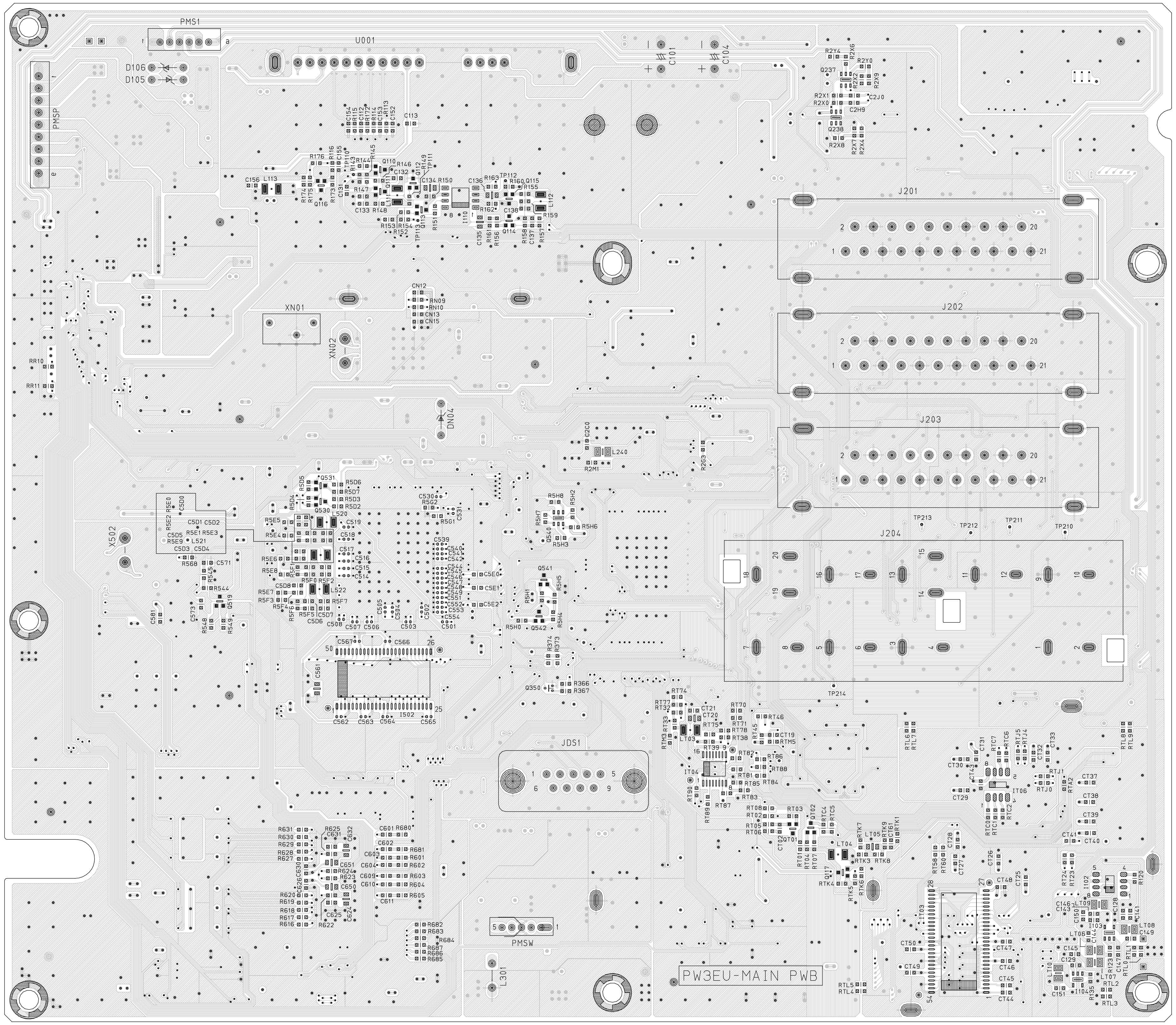
POWER BOARD



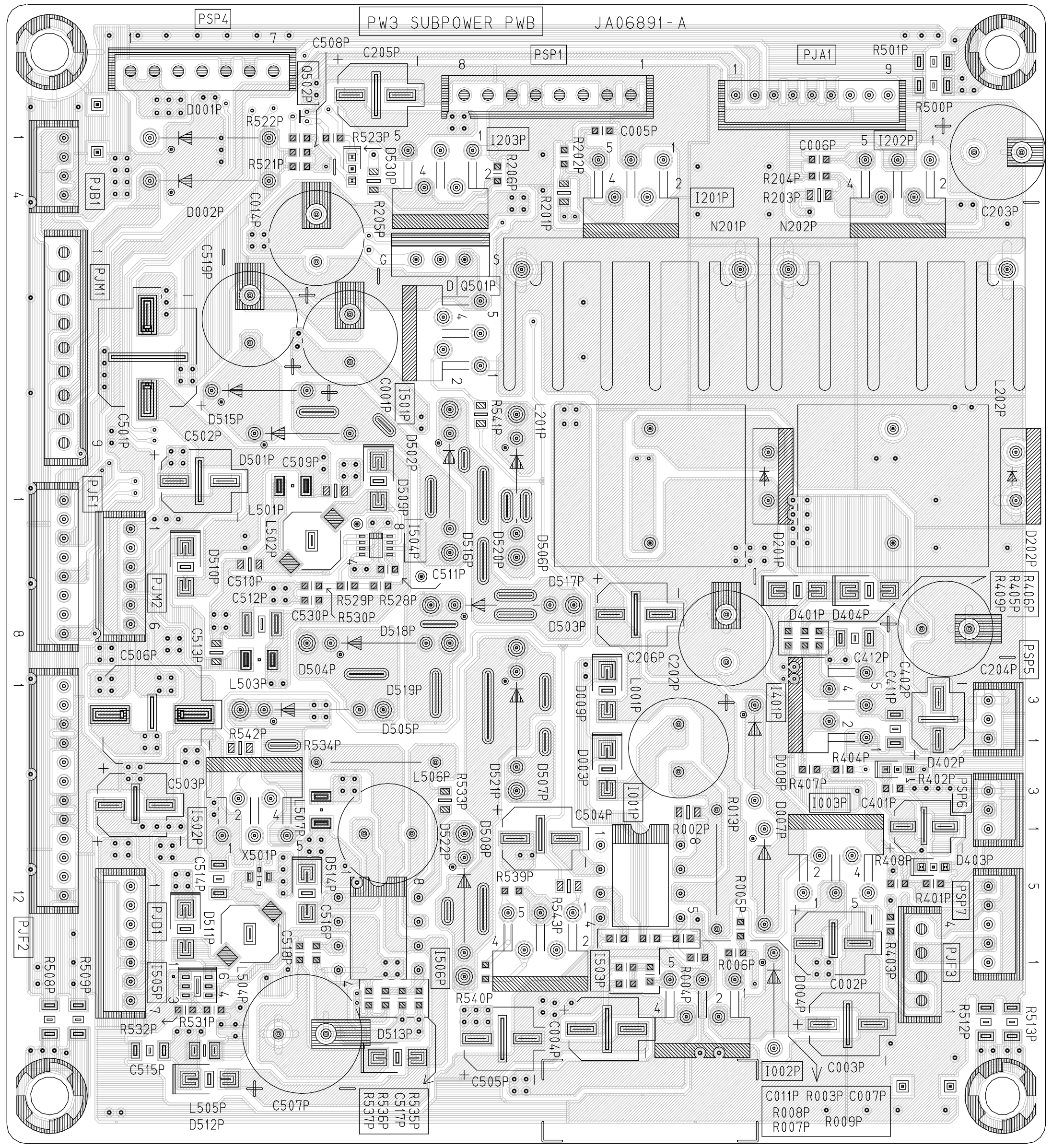
SM 011

MAIN BOARD - COMPONENT (TOP) SIDE

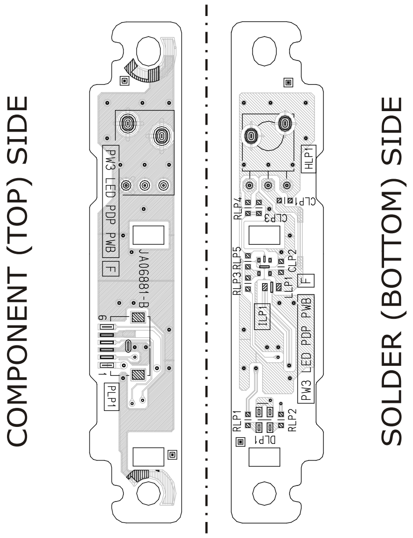
HITACHI


PMS1
U001
PMSP
D106
D105
C101
C104
R2Y4
R2X6
R2Y0
Q237
R2X9
R2X1
R2X0
C2J0
C2H9
Q238
R2X8
R2X7
R2X4
C113
C156
L113
Q110
Q111
C134
R150
C136
R163
TP112
R160
Q115
R155
L112
R159
Q114
J201
J202
J203
J204
CN12
RN09
RN10
CN13
CN15
XN01
XN02
RR10
RR11
DN04
L240
R2M1
R263
X502
Q531
Q530
L520
L521
L522
Q541
Q542
Q350
R366
R367
I502
C561
C562
C563
C564
C565
C566
C567
TP213
TP212
TP211
TP210
TP214
JDS1
IT04
IT06
RT74
RT70
CT21
CT20
PMSW
L301
PW3EU-MAIN PWB
RTL5
RTL4
CT50
CT49
CT44
CT45
CT46
CT47
I102
I103
I104
LT08
LT09
C151
RTL2
RTL3
R631
R630
R629
R628
R627
R620
R619
R618
R617
R616
R622
C601
R680
C602
R681
R682
R683
R684
R685
R686
R687

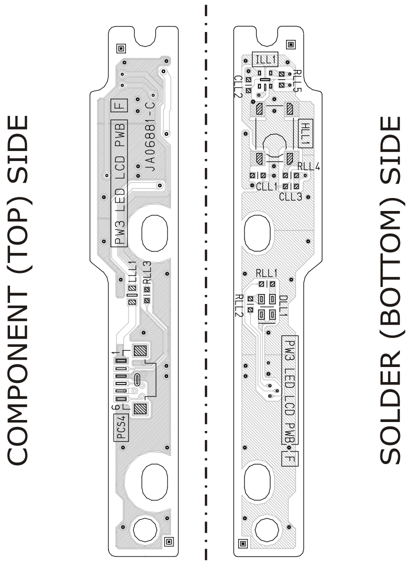
SM 011	MAIN BOARD - SOLDER (BOTTOM) SIDE	HITACHI


PW3 SUBPOWER PWB
JA06891-A
PSP4
PSP1
PJA1
PJB1
PJM1
PJF1
PJM2
PJD1
PJF2
PJF3
PSP5
PSP6
PSP7
I201P
I202P
I203P
N201P
N202P
C203P
C507P

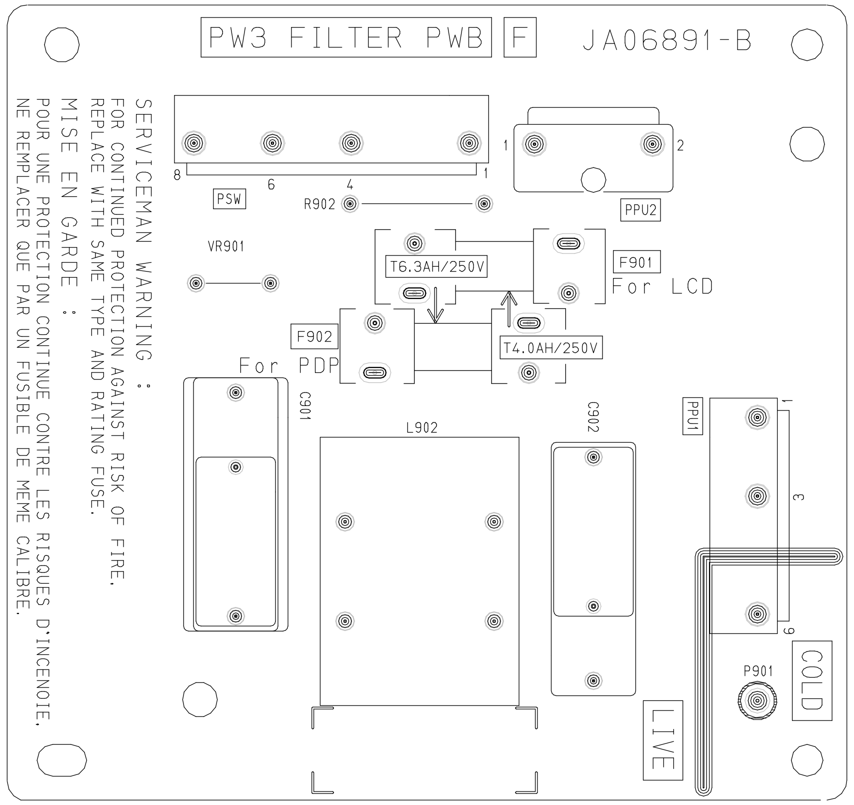
SUB-POWER BOARD
COMPONENT (TOP) SIDE


COMPONENT (TOP) SIDE
SOLDER (BOTTOM) SIDE
PW3 LED PDP PWB
JA06881-B

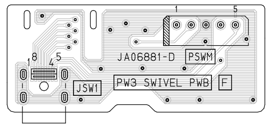
LED PDP BOARD


COMPONENT (TOP) SIDE
SOLDER (BOTTOM) SIDE
PW3 LED LCD PWB
JA06881-C

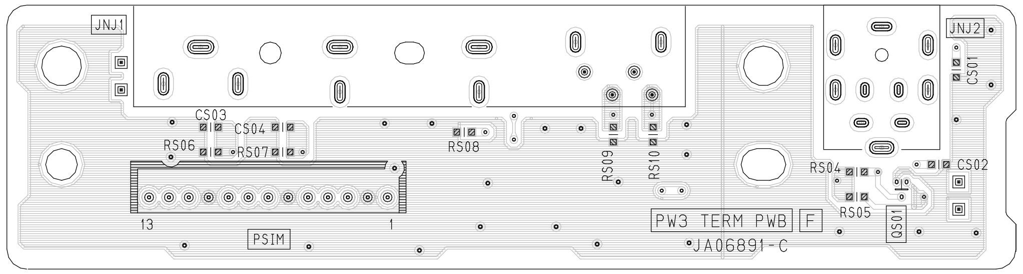
LED LCD BOARD


PW3 FILTER PWB
F
JA06891-B
PSW
R902
PPU2
VR901
T6.3AH/250V
F901
For LCD
F902
For PDP
T4.0AH/250V
C901
L902
C902
PPU1
P901
COLD
LIVE

SERVICEMAN WARNING :
FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATING FUSE.
MISE EN GARDE :
POUR UNE PROTECTION CONTINUE CONTRE LES RISQUES D'INCENOIE.
NE REMPLACER QUE PAR UN FUSIBLE DE MEME CALIBRE.


JA06881-D
PSWM
JSW1
PW3 SWIVEL PWB
F

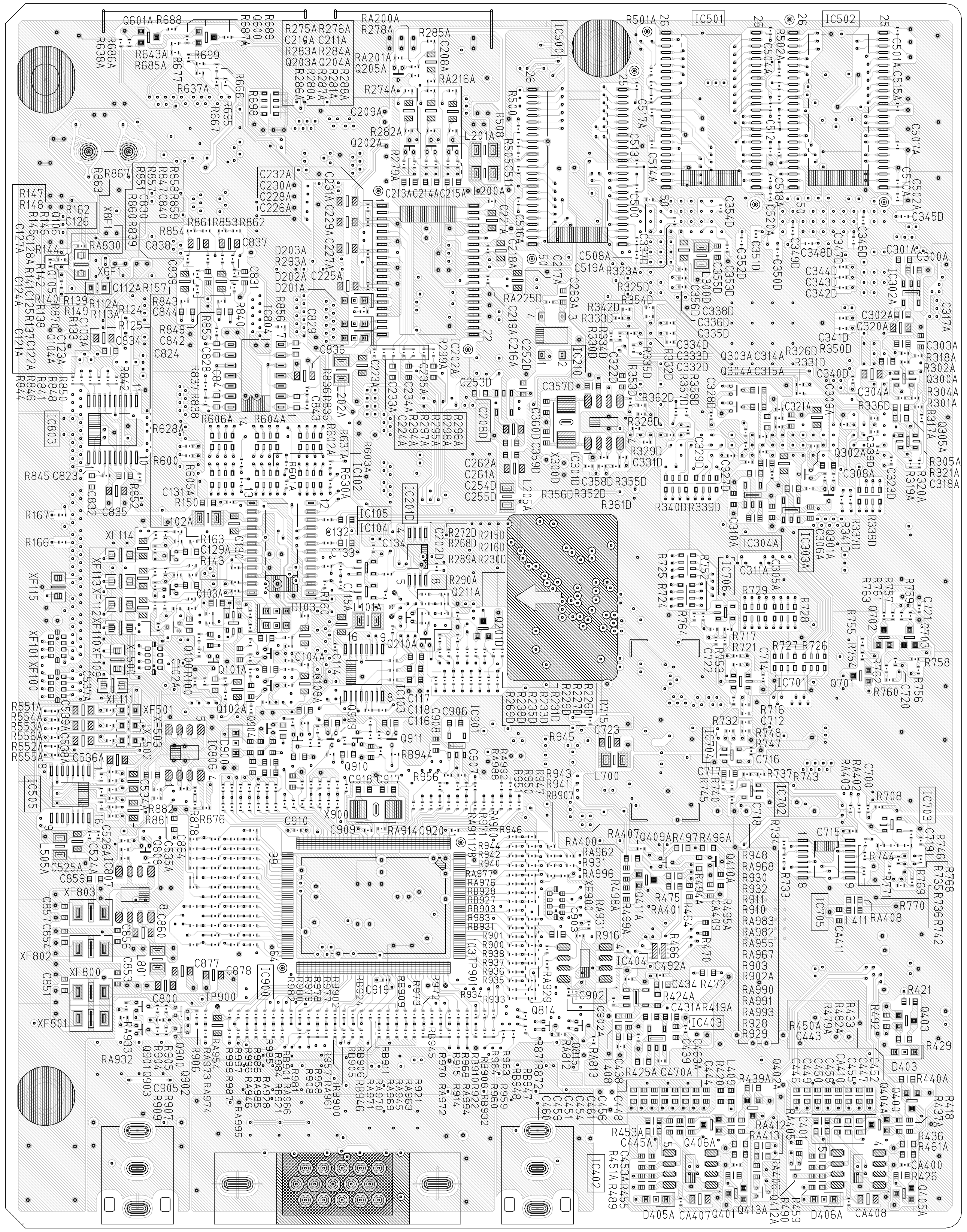
SWIVEL BOARD
COMPONENT (TOP) SIDE


JNJ1
JNJ2
CS03
CS04
RS06
RS07
RS08
RS09
RS10
RS04
RS05
CS02
PSIM
PW3 TERM PWB
F
JA06891-C

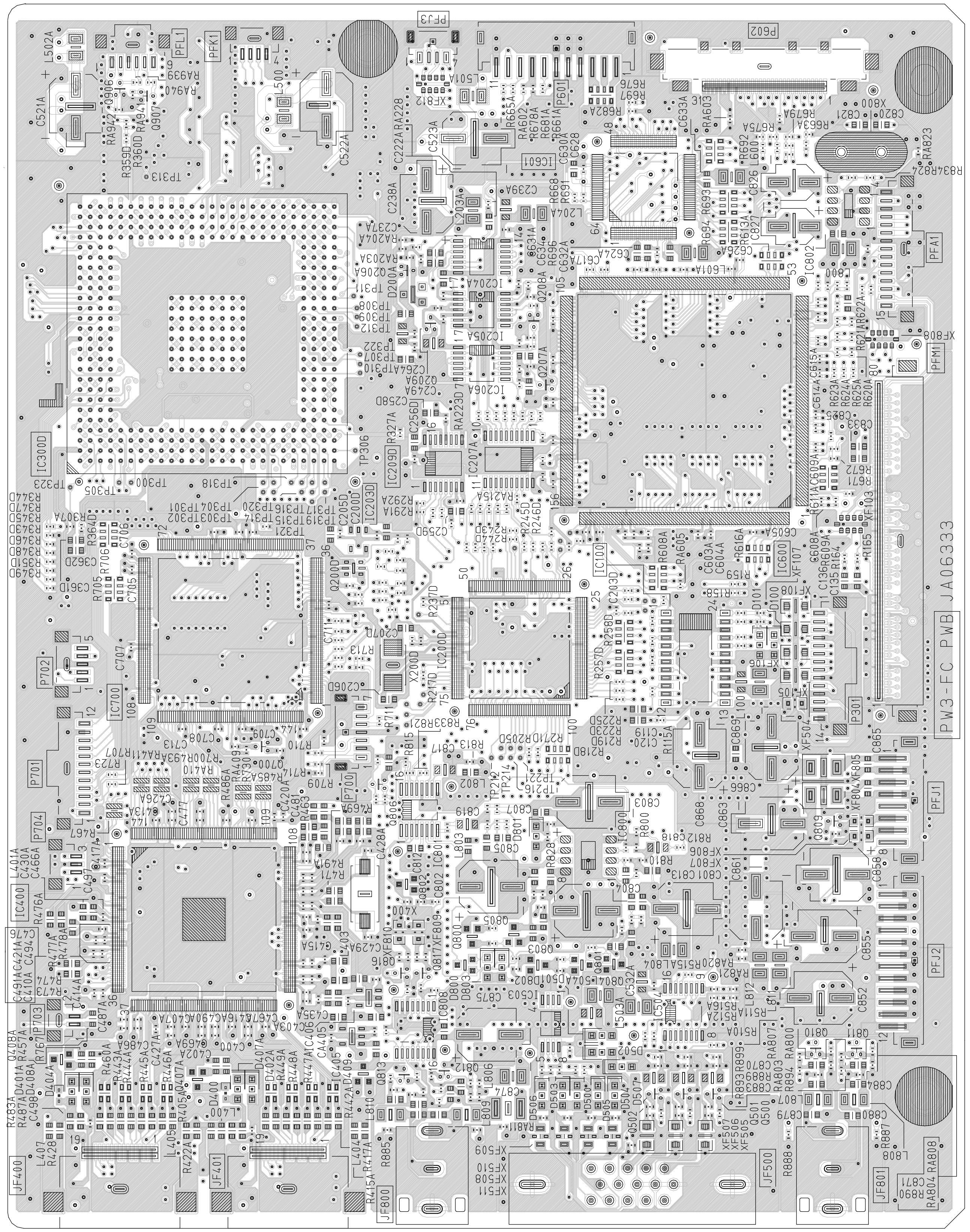
TERMINAL BOARD
COMPONENT (TOP) SIDE

FILTER BOARD
COMPONENT (TOP) SIDE

MISC. BOARDS



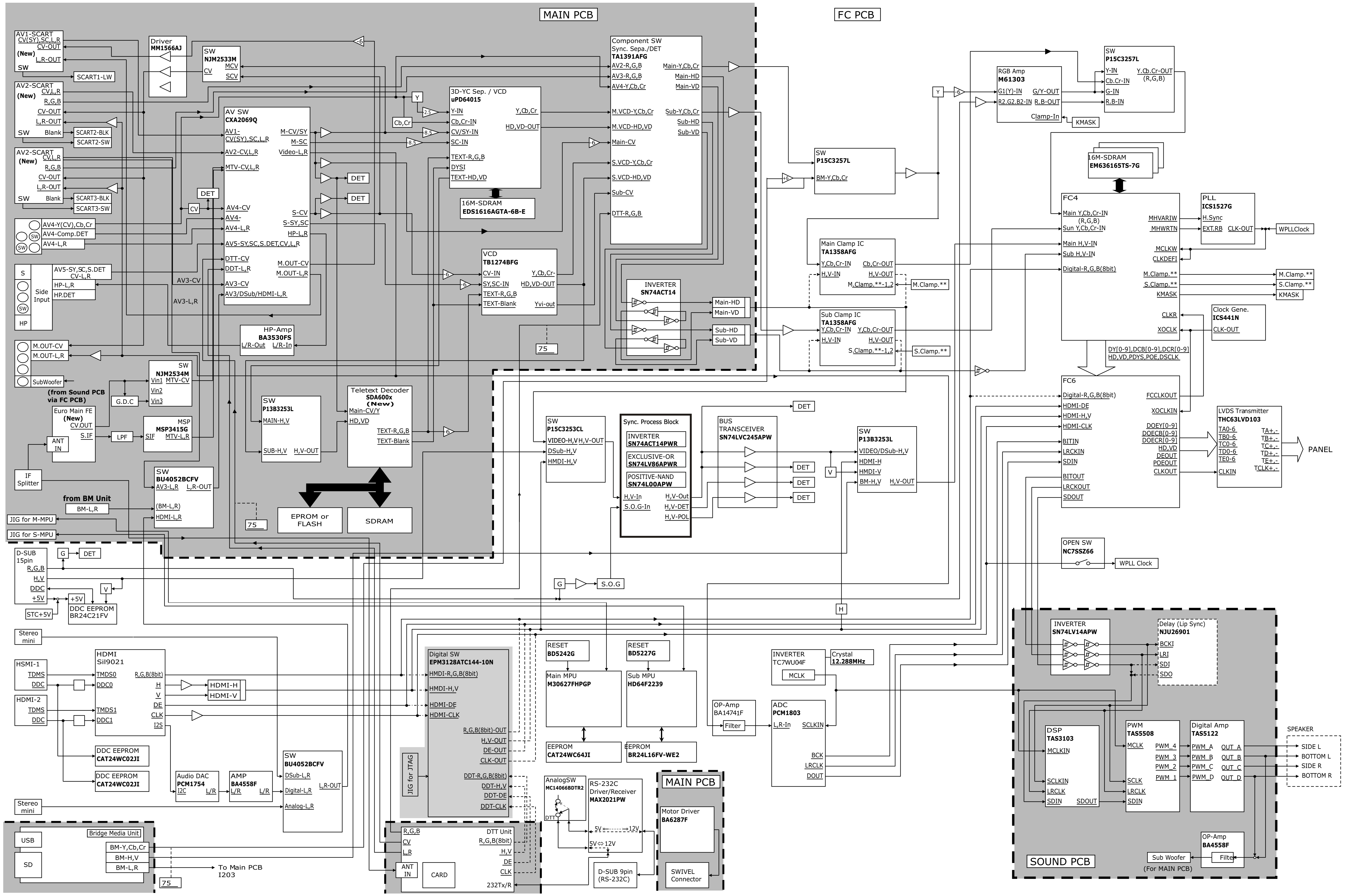
SOLDER (BOTTOM) SIDE


PW3-FC PWB JA06333

COMPONENT (TOP) SIDE

FC BOARD

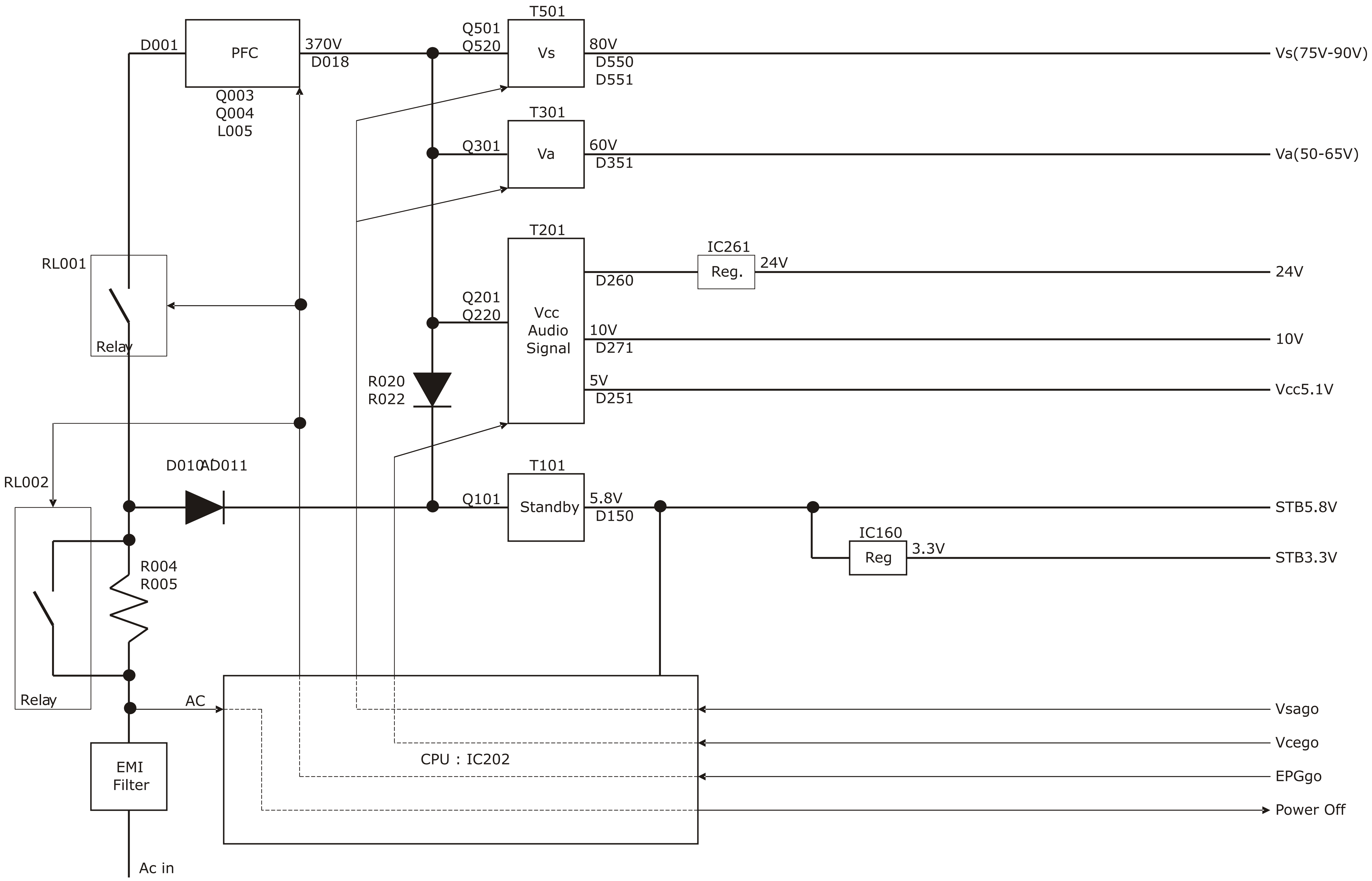
HITACHI


MAIN PCB
FC PCB
AV1-SCART CV(SY),SC,L,R CV-OUT (New) L,R-OUT SW
SCART1-LW
AV2-SCART (New) CV,L,R R,G,B CV-OUT L,R-OUT SW Blank
SCART2-BLK
SCART2-SW
AV2-SCART (New) CV,L,R R,G,B CV-OUT L,R-OUT SW Blank
SCART3-BLK
SCART3-SW
AV4-Y(CV),Cb,Cr
AV4-Comp.DET
AV4-L,R
AV5-SY,SC,S.DET CV-L,R
HP-L,R
HP.DET
Side Input
HP
M.OUT-CV
M.OUT-L,R
SubWoofer
(from Sound PCB via FC PCB)
Driver MM1566AJ
SW NJM2533M MCV SCV CV
AV SW CXA2069Q
AV1-CV(SY),SC,L,R
AV2-CV,L,R
MTV-CV,L,R
AV4-CV AV4- AV4-L,R
AV5-SY,SC,S.DET,CV,L,R
DTT-CV DDT-L,R AV3-CV AV3/DSub/HDMI-L,R
M-CV/SY M-SC Video-L,R S-CV S-SY,SC HP-L,R M.OUT-CV M.OUT-L,R
AV3-CV
AV3-L,R
DET
CV
3D-YC Sep. / VCD uPD64015
Y-IN Cb,Cr-IN CV/SY-IN SC-IN TEXT-R,G,B DYSI TEXT-HD,VD
Y,Cb,Cr HD,VD-OUT
16M-SDRAM EDS1616AGTA-6B-E
Component SW Sync. Sepa./DET TA1391AFG
AV2-R,G,B AV3-R,G,B AV4-Y,Cb,Cr
M.VCD-Y,Cb,Cr M.VCD-HD,VD Main-CV S.VCD-Y,Cb,Cr S.VCD-HD,VD Sub-CV DTT-R,G,B
Main-Y,Cb,Cr Main-HD Main-VD Sub-Y,Cb,Cr Sub-HD Sub-VD
VCD TB1274BFG
CV-IN SY,SC-IN TEXT-R,G,B TEXT-Blank
Y,Cb,Cr- HD,VD-OUT Yvi-out
INVERTER SN74ACT14
Main-HD Main-VD Sub-HD Sub-VD
HP-Amp BA3530FS L/R-Out L/R-In
75
SW NJM2534M Vin1 Vin2 Vin3 MTV-CV
G.D.C
Euro Main FE (New) CV.OUT S.IF
ANT IN
LPF
MSP MSP3415G SIF MTV-L,R
IF Splitter
SW BU4052BCFV AV3-L,R L,R-OUT (BM-L,R) HDMI-L,R
from BM Unit
BM-L,R
JIG for M-MPU
JIG for S-MPU
SW P13B3253L MAIN-H,V SUB-H,V H,V-OUT
Teletext Decoder SDA600x (New) Main-CV/Y HD,VD TEXT-R,G,B TEXT-Blank
EPROM or FLASH
SDRAM
SW P15C3257L BM-Y,Cb,Cr
Main Clamp IC TA1358AFG Y,Cb,Cr-IN H,V-IN Cb,Cr-OUT H,V-OUT M.Clamp.**-1,2
M.Clamp.**
Sub Clamp IC TA1358AFG Y,Cb,Cr-IN H,V-IN Y,Cb,Cr-OUT H,V-OUT S.Clamp.**-1,2
S.Clamp.**
RGB Amp M61303 G1(Y)-IN R2.G2.B2-IN G/Y-OUT R.B-OUT Clamp-In
KMASK
SW P15C3257L Y-IN Cb.Cr-IN G-IN R.B-IN Y.Cb.Cr-OUT (R,G,B)
16M-SDRAM EM636165TS-7G
FC4
Main Y,Cb,Cr-IN (R,G,B) Sun Y,Cb,Cr-IN Main H,V-IN Sub H,V-IN Digital-R,G,B(8bit)
MHVARIW MHWRTN MCLKW CLKDEFI M.Clamp.** S.Clamp.** KMASK CLKR XOCLK
PLL ICS1527G H.Sync EXT.RB CLK-OUT
WPLLClock
M.Clamp.**
S.Clamp.**
KMASK
Clock Gene. ICS441N CLK-OUT
DY[0-9],DCB[0-9],DCR[0-9] HD,VD,PDYS,POE,DSCLK
FC6
Digital-R,G,B(8bit) HDMI-DE HDMI-H,V HDMI-CLK BITIN LRCKIN SDIN BITOUT LRCKOUT SDOUT
FCCLKOUT XOCLKIN DOEY[0-9] DOECB[0-9] DOECR[0-9] HD,VD DEOUT POEOUT CLKOUT
LVDS Transmitter THC63LVD103
TA0-6 TB0-6 TC0-6 TD0-6 TE0-6 CLKIN
TA+,- TB+,- TC+,- TD+,- TE+,- TCLK+,-
PANEL
SW P15C3253CL VIDEO-H,V DSub-H,V HMDI-H,V H,V-OUT
Sync. Process Block
INVERTER SN74ACT14PWR
EXCLUSIVE-OR SN74LV86APWR
POSITIVE-NAND SN74L00APW
H,V-In S.O.G-In H,V-Out H,V-DET H,V-POL
BUS TRANSCEIVER SN74LVC245APW
DET
SW P13B3253L VIDEO/DSub-H,V HDMI-H HMDI-V BM-H,V H,V-OUT
OPEN SW NC7SSZ66
WPLL Clock
D-SUB 15pin R,G,B H,V DDC +5V
DDC EEPROM BR24C21FV
STC+5V
G
V
S.O.G
H
Stereo mini
HSMI-1 TDMS DDC
HDMI-2 TDMS DDC
HDMI Sil9021 TMDS0 DDC0 TMDS1 DDC1 R,G,B(8bit) H V DE CLK I2S
HDMI-H HDMI-V
DDC EEPROM CAT24WC02JI
DDC EEPROM CAT24WC02JI
Audio DAC PCM1754 I2C L/R
AMP BA4558F L/R L/R
SW BU4052BCFV DSub-L,R Digital-L,R Analog-L,R L,R-OUT
Stereo mini
USB
SD
Bridge Media Unit
BM-Y,Cb,Cr BM-H,V BM-L,R
To Main PCB I203
75
Digital SW EPM3128ATC144-10N
HMDI-R,G,B(8bit) HMDI-H,V HDMI-DE HDMI-CLK
R,G,B(8bit)-OUT H,V-OUT DE-OUT CLK-OUT DDT-R,G,B(8bit) DDT-H,V DDT-DE DDT-CLK
JIG for JTAG
R,G,B CV L,R ANT IN CARD
DTT Unit R,G,B(8bit) H,V DE CLK 232Tx/R
RESET BD5242G
Main MPU M30627FHPGP
EEPROM CAT24WC64JI
RESET BD5227G
Sub MPU HD64F2239
EEPROM BR24L16FV-WE2
AnalogSW MC14066BDTR2 DTT
RS-232C Driver/Receiver MAX2021PW 5V 12V
D-SUB 9pin (RS-232C)
MAIN PCB
Motor Driver BA6287F
SWIVEL Connector
INVERTER TC7WU04F MCLK
Crystal 12.288MHz
OP-Amp BA14741F Filter
ADC PCM1803 L,R-In SCLKIN BCK LRCLK DOUT
INVERTER SN74LV14APW
Delay (Lip Sync) NJU26901 BCKI LRI SDI SDO
DSP TAS3103 MCLKIN SCLKIN LRCLK SDIN SDOUT
PWM TAS5508 MCLK SCLK LRCLK SDIN PWM_4 PWM_3 PWM_2 PWM_1
Digital Amp TAS5122 PWM_A PWM_B PWM_C PWM_D OUT_A OUT_B OUT_C OUT_D
SPEAKER SIDE L BOTTOM L SIDE R BOTTOM R
OP-Amp BA4558F Filter
Sub Woofer
(For MAIN PCB)
SOUND PCB

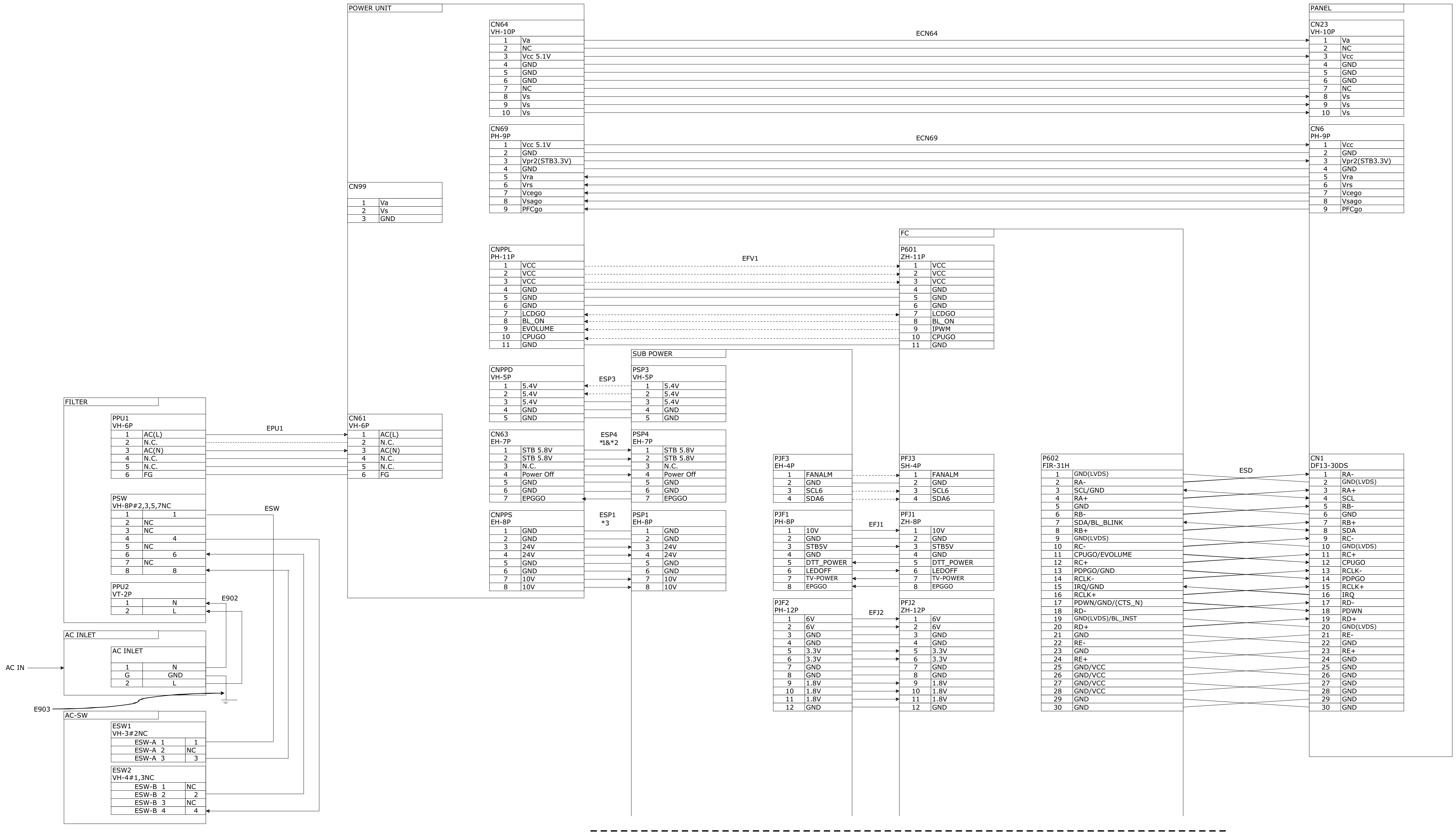
SM 011

BLOCK DIAGRAM

HITACHI


D001
PFC
370V
D018
Q003
Q004
L005
Q501
Q520
T501
Vs
80V
D550
D551
Vs(75V-90V)
T301
Q301
Va
60V
D351
Va(50-65V)
T201
IC261
Reg.
24V
D260
24V
RL001
Relay
Q201
Q220
Vcc
Audio
Signal
10V
D271
10V
5V
D251
Vcc5.1V
R020
R022
RL002
D010AD011
T101
Q101
Standby
5.8V
D150
STB5.8V
IC160
Reg
3.3V
STB3.3V
R004
R005
Relay
AC
Vsago
Vcego
CPU : IC202
EPGgo
Power Off
EMI
Filter
Ac in

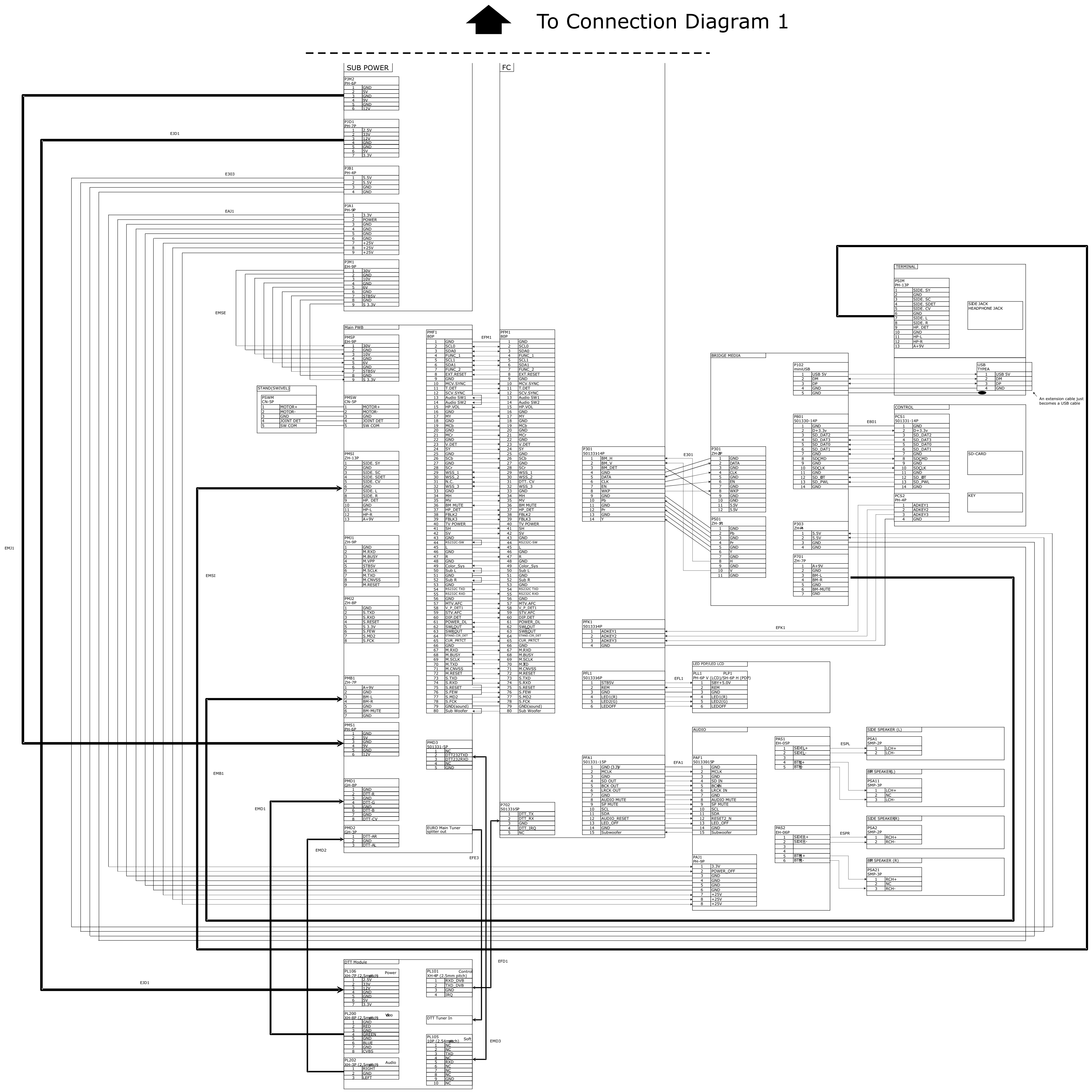
SM 011	POWER UNIT BLOCK DIAGRAM	HITACHI


POWER UNIT
CN64
VH-10P
1 Va
2 NC
3 Vcc 5.1V
4 GND
5 GND
6 GND
7 NC
8 Vs
9 Vs
10 Vs
ECN64
PANEL
CN23
VH-10P
1 Va
2 NC
3 Vcc
4 GND
5 GND
6 GND
7 NC
8 Vs
9 Vs
10 Vs
CN69
PH-9P
1 Vcc 5.1V
2 GND
3 Vpr2(STB3.3V)
4 GND
5 Vra
6 Vrs
7 Vcego
8 Vsago
9 PFCgo
ECN69
CN6
PH-9P
1 Vcc
2 GND
3 Vpr2(STB3.3V)
4 GND
5 Vra
6 Vrs
7 Vcego
8 Vsago
9 PFCgo
CN99
1 Va
2 Vs
3 GND
FC
CNPPL
PH-11P
1 VCC
2 VCC
3 VCC
4 GND
5 GND
6 GND
7 LCDGO
8 BL_ON
9 EVOLUME
10 CPUGO
11 GND
EFV1
P601
ZH-11P
1 VCC
2 VCC
3 VCC
4 GND
5 GND
6 GND
7 LCDGO
8 BL_ON
9 IPWM
10 CPUGO
11 GND
SUB POWER
CNPPD
VH-5P
1 5.4V
2 5.4V
3 5.4V
4 GND
5 GND
ESP3
PSP3
VH-5P
1 5.4V
2 5.4V
3 5.4V
4 GND
5 GND
FILTER
PPU1
VH-6P
1 AC(L)
2 N.C.
3 AC(N)
4 N.C.
5 N.C.
6 FG
EPU1
CN61
VH-6P
1 AC(L)
2 N.C.
3 AC(N)
4 N.C.
5 N.C.
6 FG
CN63
EH-7P
1 STB 5.8V
2 STB 5.8V
3 N.C.
4 Power Off
5 GND
6 GND
7 EPGGO
ESP4
*1&*2
PSP4
EH-7P
1 STB 5.8V
2 STB 5.8V
3 N.C.
4 Power Off
5 GND
6 GND
7 EPGGO
PJF3
EH-4P
1 FANALM
2 GND
3 SCL6
4 SDA6
PFJ3
SH-4P
1 FANALM
2 GND
3 SCL6
4 SDA6
P602
FIR-31H
1 GND(LVDS)
2 RA-
3 SCL/GND
4 RA+
5 GND
6 RB-
7 SDA/BL_BLINK
8 RB+
9 GND(LVDS)
10 RC-
11 CPUGO/EVOLUME
12 RC+
13 PDPGO/GND
14 RCLK-
15 IRQ/GND
16 RCLK+
17 PDWN/GND/(CTS_N)
18 RD-
19 GND(LVDS)/BL_INST
20 RD+
21 GND
22 RE-
23 GND
24 RE+
25 GND/VCC
26 GND/VCC
27 GND/VCC
28 GND/VCC
29 GND
30 GND
ESD
CN1
DF13-30DS
1 RA-
2 GND(LVDS)
3 RA+
4 SCL
5 RB-
6 GND
7 RB+
8 SDA
9 RC-
10 GND(LVDS)
11 RC+
12 CPUGO
13 RCLK-
14 PDPGO
15 RCLK+
16 IRQ
17 RD-
18 PDWN
19 RD+
20 GND(LVDS)
21 RE-
22 GND
23 RE+
24 GND
25 GND
26 GND
27 GND
28 GND
29 GND
30 GND
PSW
VH-8P#2,3,5,7NC
1 1
2 NC
3 NC
4 4
5 NC
6 6
7 NC
8 8
ESW
CNPPS
EH-8P
1 GND
2 GND
3 24V
4 24V
5 GND
6 GND
7 10V
8 10V
ESP1
*3
PSP1
EH-8P
1 GND
2 GND
3 24V
4 24V
5 GND
6 GND
7 10V
8 10V
PJF1
PH-8P
1 10V
2 GND
3 STB5V
4 GND
5 DTT_POWER
6 LEDOFF
7 TV-POWER
8 EPGGO
EFJ1
PFJ1
ZH-8P
1 10V
2 GND
3 STB5V
4 GND
5 DTT_POWER
6 LEDOFF
7 TV-POWER
8 EPGGO
PPU2
VT-2P
1 N
2 L
E902
PJF2
PH-12P
1 6V
2 6V
3 GND
4 GND
5 3.3V
6 3.3V
7 GND
8 GND
9 1.8V
10 1.8V
11 1.8V
12 GND
EFJ2
PFJ2
ZH-12P
1 6V
2 6V
3 GND
4 GND
5 3.3V
6 3.3V
7 GND
8 GND
9 1.8V
10 1.8V
11 1.8V
12 GND
AC INLET
AC INLET
AC IN
1 N
G GND
2 L
E903
AC-SW
ESW1
VH-3#2NC
ESW-A 1 1
ESW-A 2 NC
ESW-A 3 3
ESW2
VH-4#1,3NC
ESW-B 1 NC
ESW-B 2 2
ESW-B 3 NC
ESW-B 4 4

To Connection Diagram 2

CONNECTION DIAGRAM 1

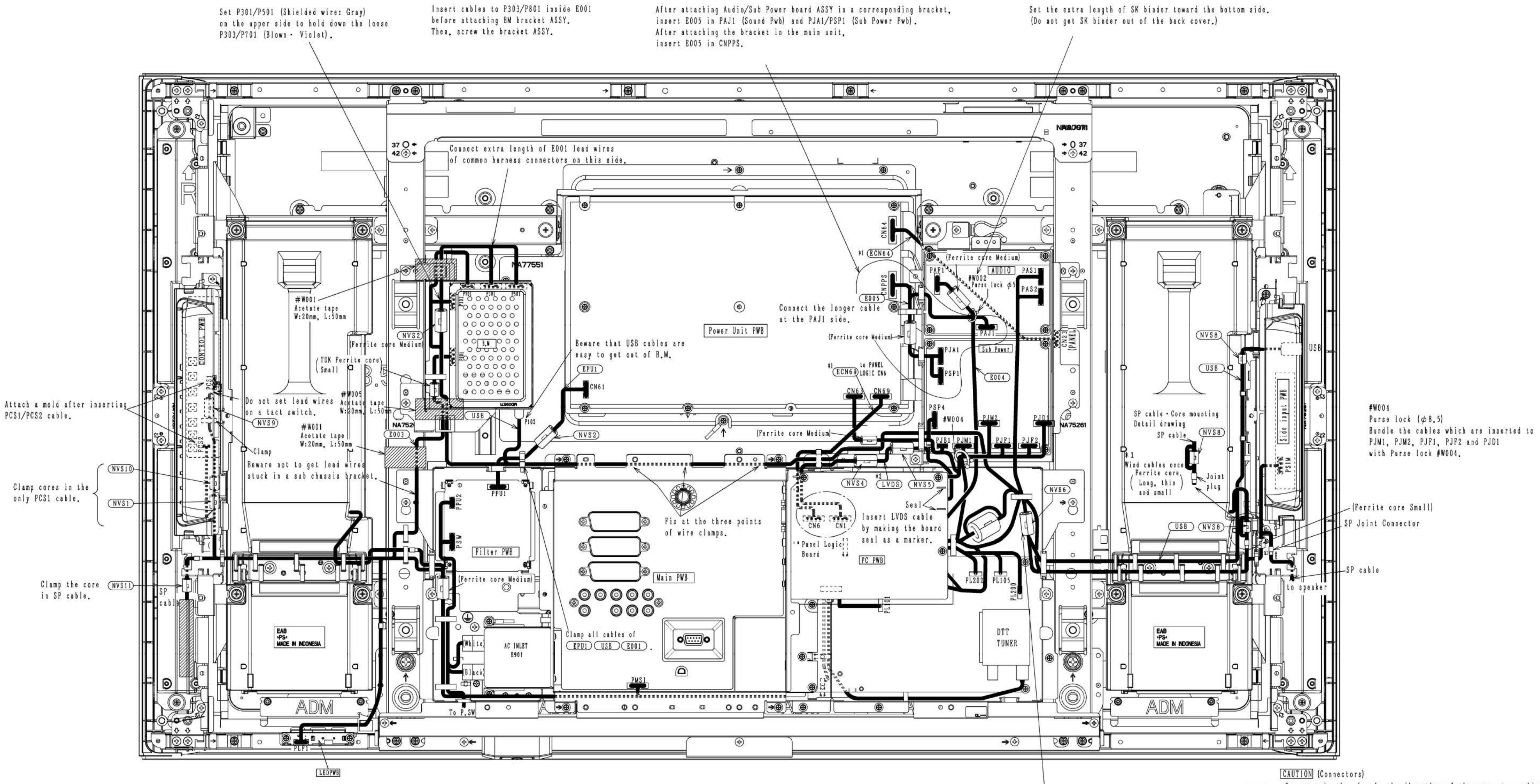
HITACHI


To Connection Diagram 1
SUB POWER
FC
Main PWB
STAND(SWIVEL)
BRIDGE MEDIA
TERMINAL
SIDE JACK
HEADPHONE JACK
USB
An extension cable just becomes a USB cable
CONTROL
SD-CARD
KEY
LED PDP/LED LCD
AUDIO
SIDE SPEAKER (L)
SIDE SPEAKER (R)
DTT Module
DTT Tuner In
EURO Main Tuner splitter out
EJD1
EJ03
EAJ1
EMSE
EMJ1
EMSI
EMB1
EMD1
EMD2
EFM1
EFE3
EFD1
EMD3
E301
E801
EFK1
EFL1
EFA1
ESPL
ESPR
Power
Control
Video
Audio
Soft

SM 011

CONNECTION DIAGRAM 2

WIRING ASSEMBLY DIAGRAM 1



Set P301/P501 (Shielded wire: Gray) on the upper side to hold down the loose P303/P701 (Blown・Violet).

Insert cables to P303/P801 inside E001 before attaching BM bracket ASSY. Then, screw the bracket ASSY.

After attaching Audio/Sub Power board ASSY in a corresponding bracket, insert E005 in PAJ1 (Sound Pwb) and PJA1/PSP1 (Sub Power Pwb). After attaching the bracket in the main unit, insert E005 in CNPPS.

Set the extra length of SK binder toward the bottom side. (Do not get SK binder out of the back cover.)

Connect extra length of E001 lead wires of common harness connectors on this side.

#W001 Acetate tape W:20mm, L:50mm

Beware that USB cables are easy to get out of B.M.

Connect the longer cable at the PAJ1 side.

#W002 Purse lock φ5

Attach a mold after inserting PCS1/PCS2 cable.

Do not set lead wires on a tact switch.

#W005 Acetate tape W:20mm, L:50mm

#W001 Acetate tape W:20mm, L:50mm

Beware not to get lead wires stuck in a sub chassis bracket.

Clamp cores in the only PCS1 cable.

Clamp the core in SP cable.

Fix at the three points of wire clamps.

Insert LVDS cable by making the board seal as a marker.

Clamp all cables of EPU1 USB E001.

SP cable・Core mounting Detail drawing

*1 Wind cables once

#W004
Purse lock (φ8.5)
Bundle the cables which are inserted to PJM1, PJM2, PJF1, PJF2 and PJD1 with Purse lock #W004.

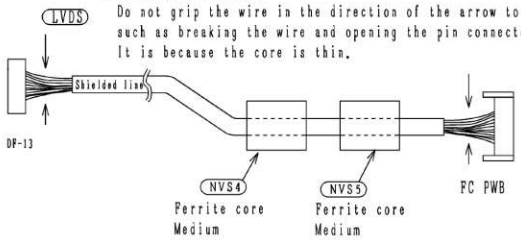
(Ferrite core Medium)
NVS2
(TDK Ferrite core Small)
NVS9
Clamp
NVS10
NVS1
NVS11
SP cable
E003
USB
NA752
NA77551
P701
P301
P501
P303
P801
B.M
P102
EPU1
CN61
NVS2
PPU1
PPU2
PSW
Filter PWB
(White)
(Black)
AC INLET E901
To P.SW
PMS1
Main PWB
Power Unit PWB
37
42
CN64
*1 ECN64
CNPPS
E005
*1 ECN69
to PANEL LOGIC CN6
CN63
CN69
(Ferrite core Medium)
AUDIO
PAF1
PAS1
PAS2
PAJ1
CN23 (PANEL)
Sub Power
PJA1
PSP1
E004
PSP4
#W004
PJB1
PJM1
PJM2
PJF1
PJF2
PJD1
NA75261
NVS4
*2 LVDS
NVS5
Seal
CN6
CN1
Panel Logic Board
FC PWB
PL202
PL105
PL200
PL101
DTT TUNER
NVS6
NVS8
USB
SP cable
Ferrite core (Long, thin and small)
Joint plug
Side input PWB
PSIM
(Ferrite core Small)
SP Joint Connector
SP cable
to speaker
EAB
>PS<
MADE IN INDONESIA
ADM
CONTROL PWB
PCS1
PCS2
PLF1
LEDPWB

*1 Regarding ECN64 and ECN69, insert connectors while installing Power Supply PWB in the panel.

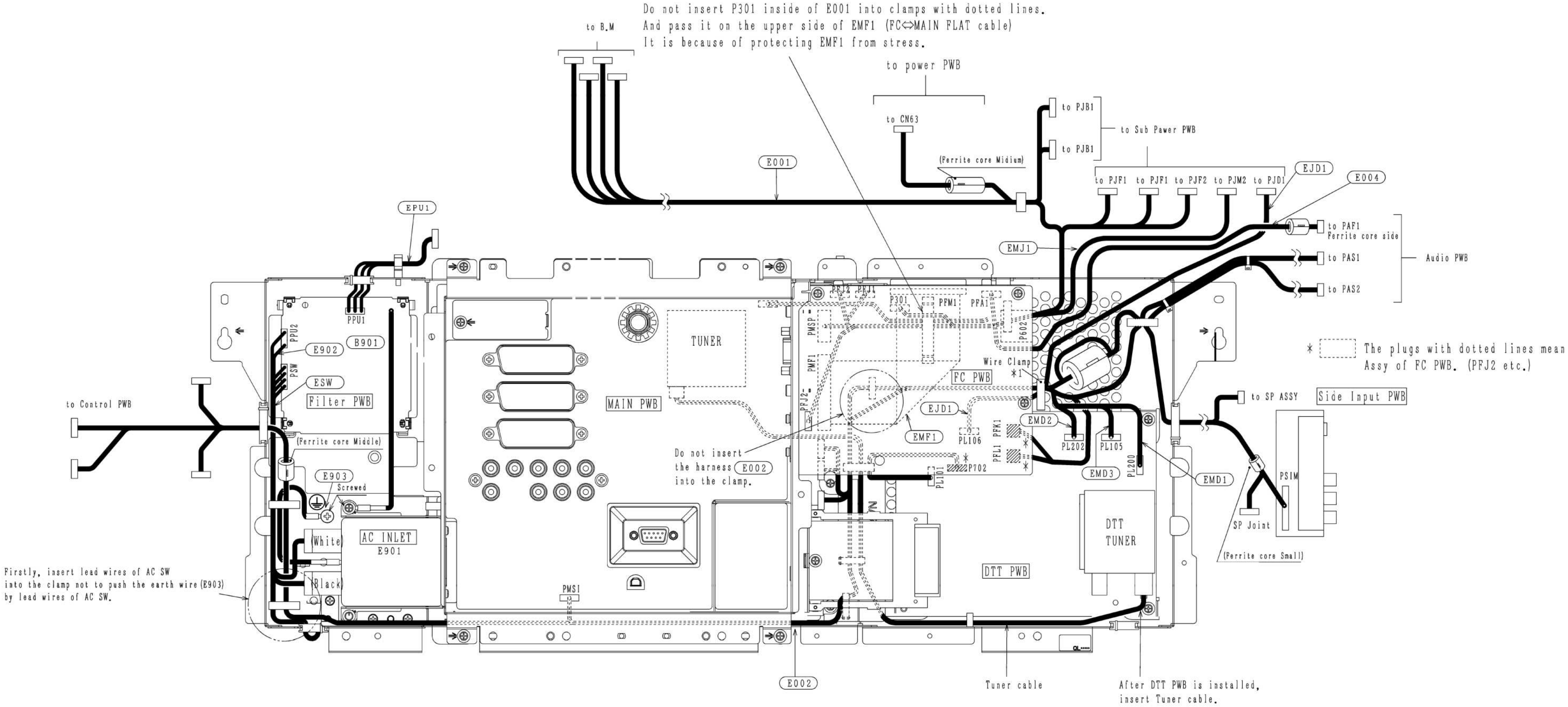
*2 In advance, insert LVDS (LVDS cable) in LOGIC board CN1 of the panel.

Clamp SP cable of Lch and USB cable at NVS6 core.

CAUTION (Connectors)
Do not grip the wire in the direction of the arrow to avoid defects, such as breaking the wire and opening the pin connector part.
It is because the core is thin.



LVDS
Shielded line
DF-13
NVS4
Ferrite core Medium
NVS5
Ferrite core Medium
FC PWB


to B.M
E001
to power PWB
to CN63
(Ferrite core Midium)
to PJB1
to PJB1
to Sub Pawer PWB
to PJF1
to PJF1
to PJF2
to PJM2
to PJD1
EJD1
E004
to PAF1
Ferrite core side
to PAS1
to PAS2
Audio PWB
EMJ1
EPU1
PPU1
PPU2
E902
B901
PSW
ESW
Filter PWB
to Control PWB
(Ferrite core Middle)
E903
Screwed
White
Black
AC INLET
E901
PMS1
MAIN PWB
TUNER
E002
PFJ2
PFJ1
P301
PFM1
PFA1
PMSP
PMF1
P602
FC PWB
Wire Clamp
*1
EJD1
EMF1
PL106
PFL1
PFK1
EMD2
PL202
PL105
PL200
PL101
P702
EMD3
EMD1
DTT PWB
DTT
TUNER
to SP ASSY
Side Input PWB
PSIM
SP Joint
(Ferrite core Small)
E002
Tuner cable

Do not insert P301 inside of E001 into clamps with dotted lines.
And pass it on the upper side of EMF1 (FC⇔MAIN FLAT cable)
It is because of protecting EMF1 from stress.

* The plugs with dotted lines mean Assy of FC PWB. (PFJ2 etc.)

Do not insert the harness E002 into the clamp.

Firstly, insert lead wires of AC SW into the clamp not to push the earth wire (E903) by lead wires of AC SW.

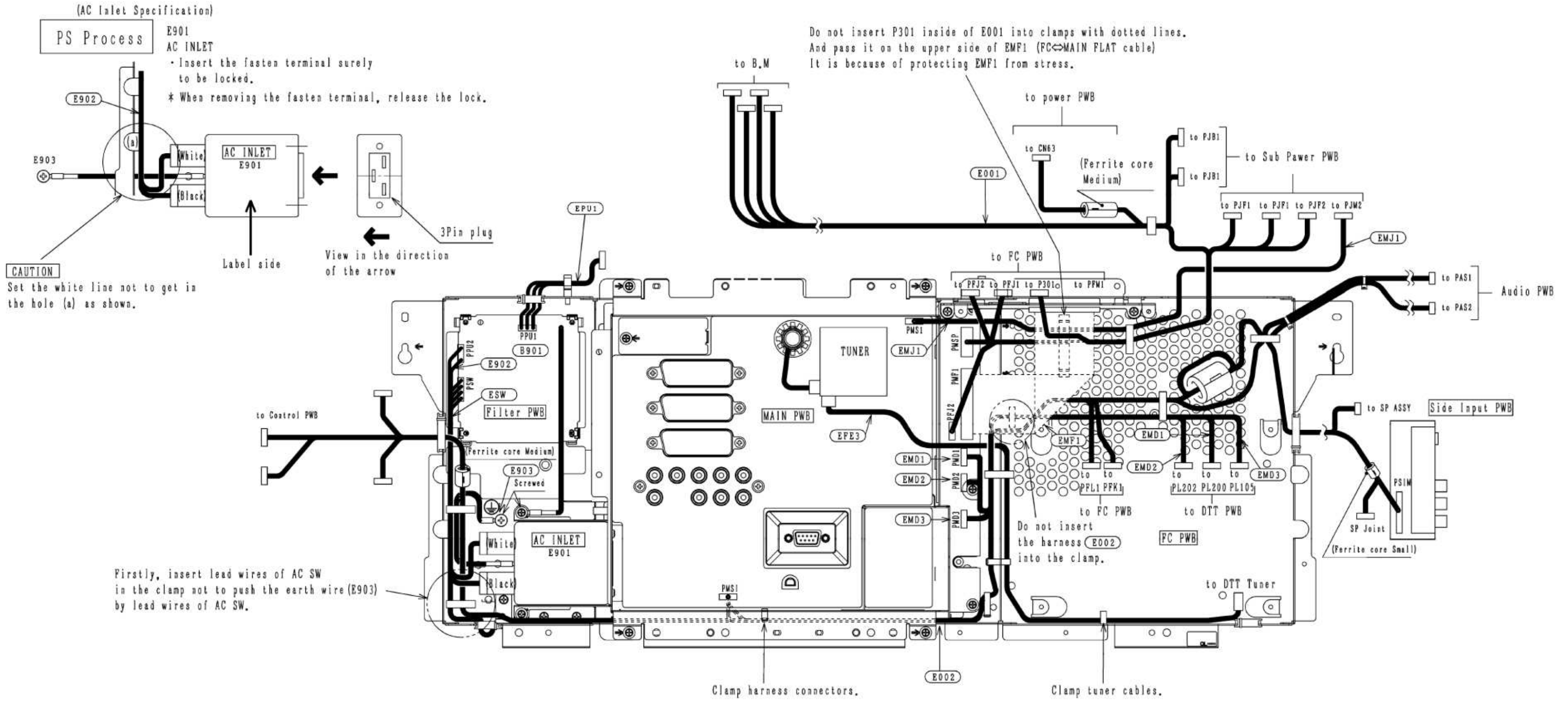
After DTT PWB is installed, insert Tuner cable.

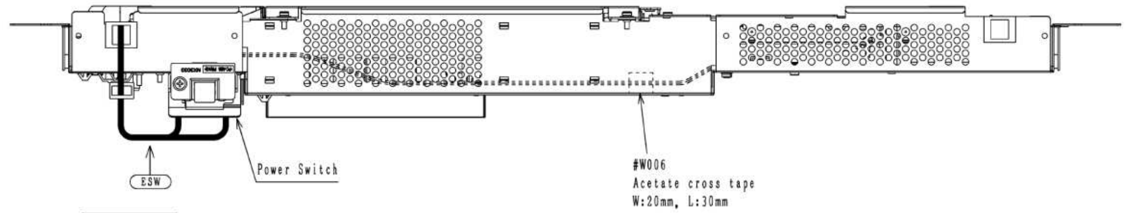
* Insert connectors in P702/ PFL1/ PFK1 plugs
while tilting FC PWB.
And then, get in wire clamp (*1).

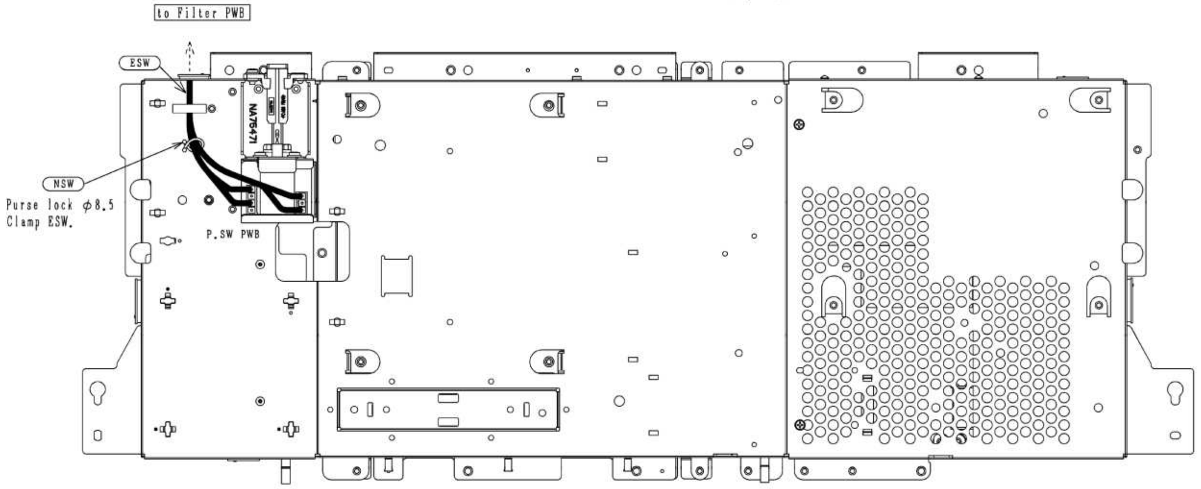
▨ This means a connector plug, which is inside of FC PWB ASS.

WIRING ASSEMBLY DIAGRAM 2

HITACHI

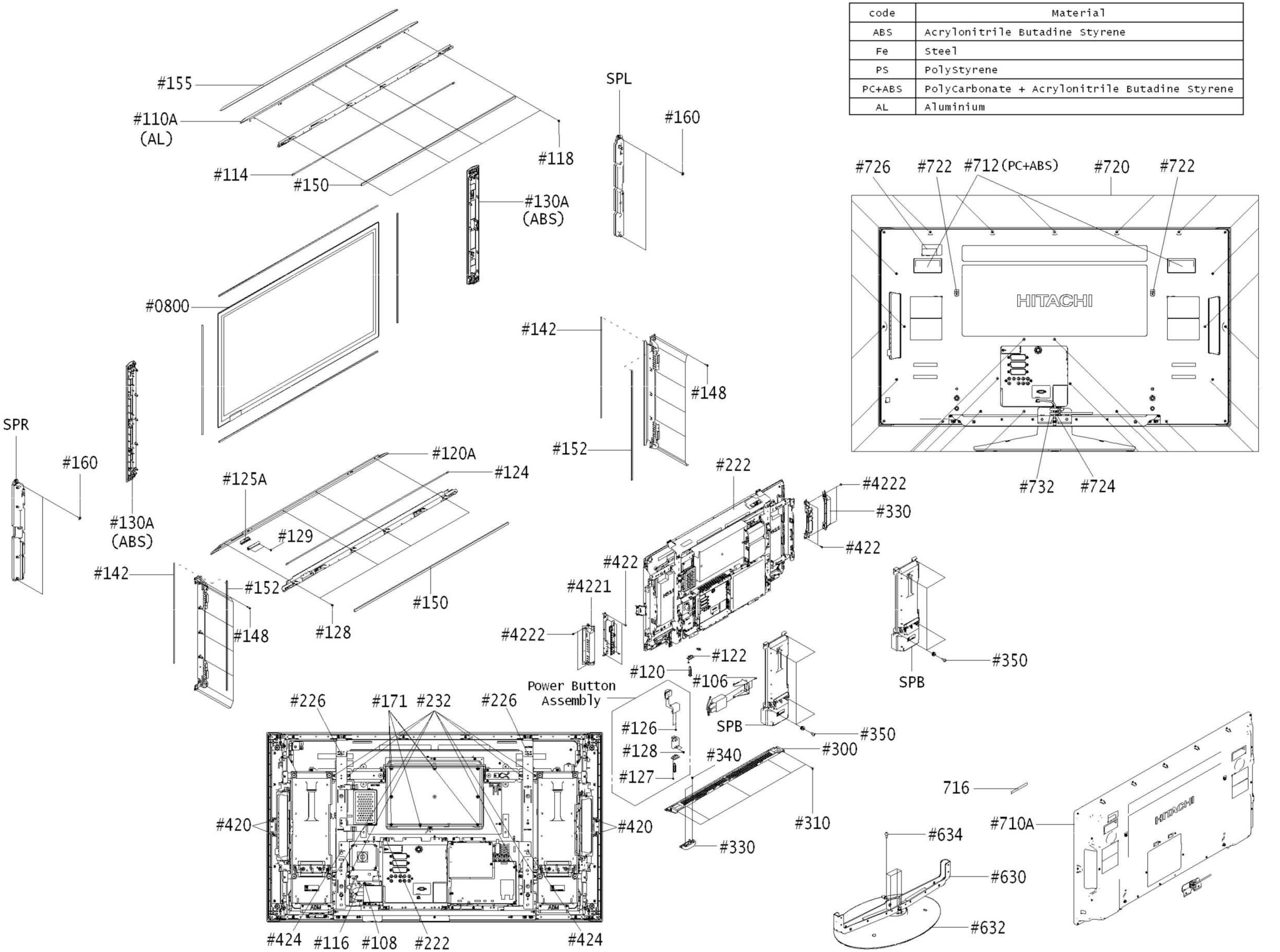

(AC Inlet Specification)
PS Process
E901
AC INLET
・Insert the fasten terminal surely to be locked.
* When removing the fasten terminal, release the lock.
E902
(a)
E903
White
Black
AC INLET
E901
Label side
3Pin plug
View in the direction of the arrow
CAUTION
Set the white line not to get in the hole (a) as shown.
Do not insert P301 inside of E001 into clamps with dotted lines.
And pass it on the upper side of EMF1 (FC⇔MAIN FLAT cable)
It is because of protecting EMF1 from stress.
to B.M
to power PWB
to CN63
(Ferrite core Medium)
E001
to PJB1
to PJB1
to Sub Pawer PWB
to PJF1
to PJF1
to PJF2
to PJM2
EMJ1
to FC PWB
to PFJ2
to PFJ1
to P301
to PFM1
to PAS1
to PAS2
Audio PWB
EPU1
PPU1
B901
PPU2
E902
PSW
ESW
Filter PWB
to Control PWB
(Ferrite core Medium)
E903
Screwed
White
Black
AC INLET
E901
Firstly, insert lead wires of AC SW in the clamp not to push the earth wire (E903) by lead wires of AC SW.
TUNER
MAIN PWB
EFE3
PMS1
EMJ1
PMSP
PMF1
PFJ2
EMD1
EMD2
EMD3
PMD1
PMD2
PMD3
PMS1
Clamp harness connectors.
E002
EMF1
EMD1
EMD2
EMD3
to PFL1
to PFK1
to FC PWB
to PL202
to PL200
to PL105
to DTT PWB
Do not insert the harness E002 into the clamp.
FC PWB
to DTT Tuner
Clamp tuner cables.
to SP ASSY
Side Input PWB
PSIM
SP Joint
(Ferrite core Small)


ESW
Power Switch
#W006
Acetate cross tape
W:20mm, L:30mm


to Filter PWB
ESW
NSW
Purse lock ϕ8.5
Clamp ESW.
P.SW PWB
NA75471

Rear of Chassis

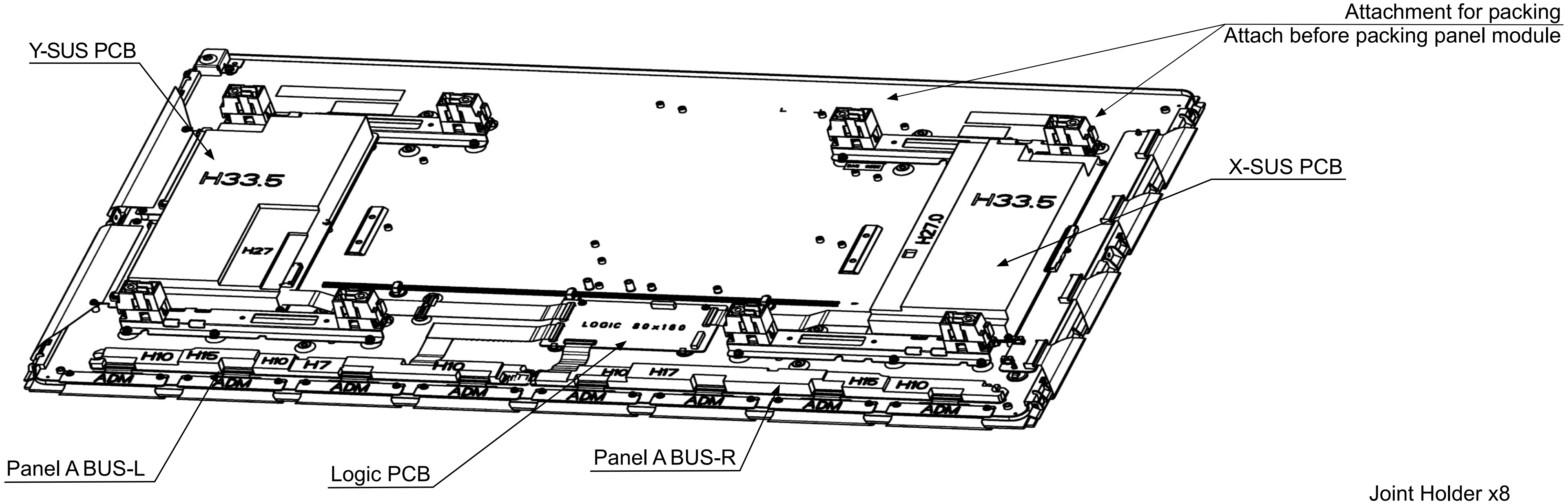
code	Material
ABS	Acrylonitrile Butadine Styrene
Fe	Steel
PS	PolyStyrene
PC+ABS	PolyCarbonate + Acrylonitrile Butadine Styrene
AL	Aluminium


#155
#110A
(AL)
#114
#150
#118
SPL
#160
#130A
(ABS)
#0800
#142
#148
#152
SPR
#160
#130A
(ABS)
#120A
#124
#125A
#129
#142
#152
#148
#128
#150
#222
#4222
#330
#422
#422
#4221
#4222
#122
#120
#106
#350
SPB
Power Button
Assembly
#126
#128
#127
SPB
#350
#300
#340
#310
#330
#226
#171
#232
#226
#420
#420
#424
#116
#108
#222
#424
#726
#722
#712(PC+ABS)
#720
#722
HITACHI
#732
#724
716
#710A
HITACHI
#634
#630
#632

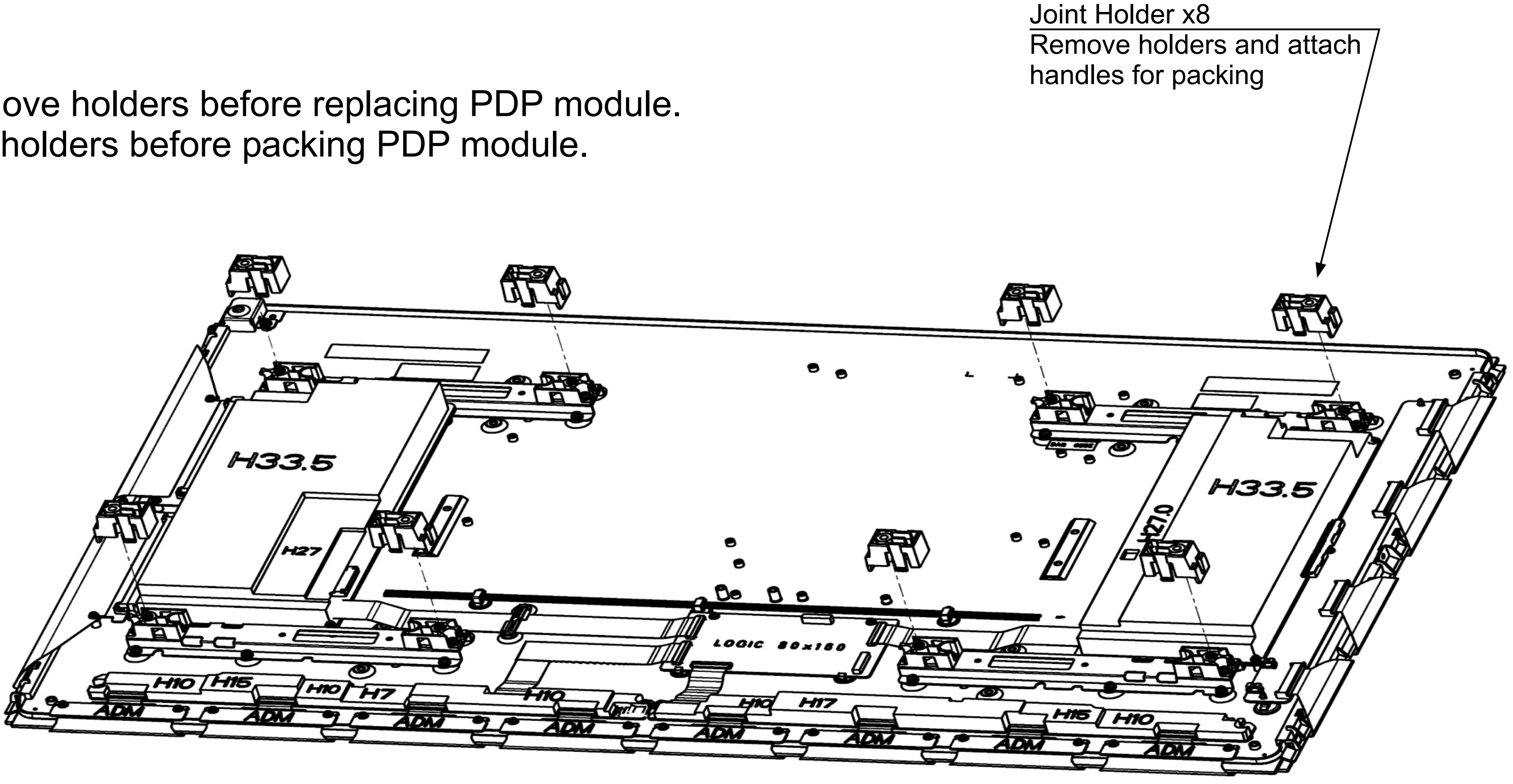
SM 011

ASSEMBLY DIAGRAM

HITACHI


Attachment for packing
Attach before packing panel module
Y-SUS PCB
X-SUS PCB
H33.5
H27
H33.5
H27.0
LOGIC 80x160
H10
H15
H7
H17
ADM
Panel A BUS-L
Logic PCB
Panel A BUS-R

Remove holders before replacing PDP module.
Add holders before packing PDP module.


Joint Holder x8
Remove holders and attach handles for packing
H33.5
H27
H33.5
H27.0
LOGIC 80x160
H10
H15
H7
H17
ADM

SM 011

PANEL MODULE ASSEMBLY

HITACHI

THE UPDATED PARTS LIST

FOR THIS MODEL IS

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